

TOWN OF FRAMINGHAM, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
CONTRACT DRAWINGS FOR
INDIAN HEAD HEIGHTS WATER
STORAGE TANK REPLACEMENT
20 & 22 INDIAN HEAD HEIGHTS
AUGUST 11, 2016
SITE PLAN REVIEW SUBMITTAL

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CIVIL

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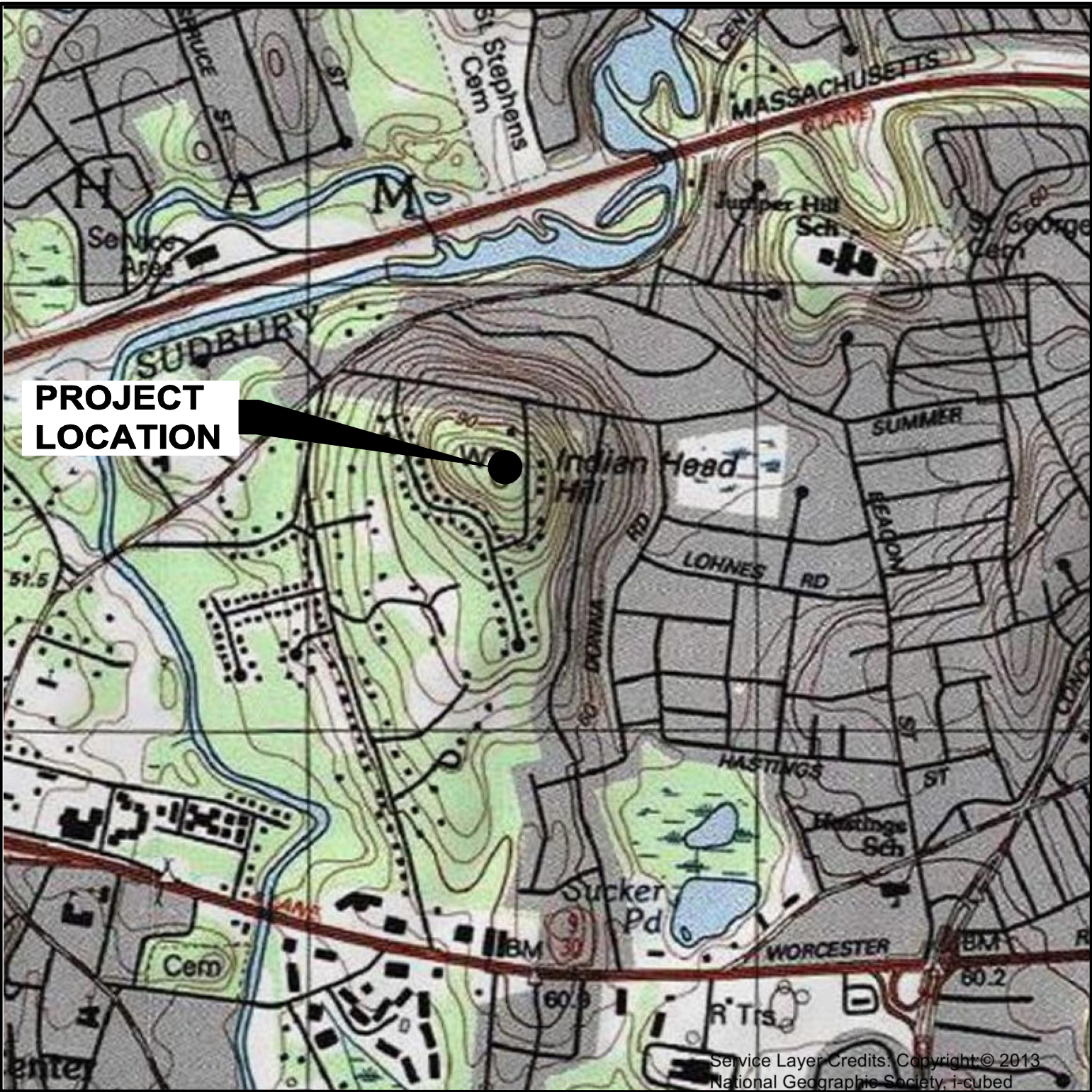
ZONING DATA	Existing	Proposed	Required
Lot Area (square feet/acres)	161,607.6 / 3.71	161,607.6 / 3.71	43,560 / 1.0
Frontage of Property (feet)	324.5	324.5	150
Front Setback (feet)	39.7	71.8	30
Side/Rear Setback (feet)	93.2/478.3	110.2/339.0	30
Minimum Landscape Open Space Surface Ratio (%)	77	58	50
Building Height (feet)	42	48	35
Lot Coverage (%)	7	7	15
Gross Floor Area Ratio of Building(s)	11,391	11,196	--
Floor Area Ratio (gross floor area of building(s) + size of parcel)	7	7	--

PARCEL ID

1002470008500150/DEED BOOK 6323/DEED PAGE 424
100592000010008A/DEED BOOK 9369/DEED PAGE 527

APPROVED BY
FRAMINGHAM PLANNING BOARD

CHAIRPERSON	DATE
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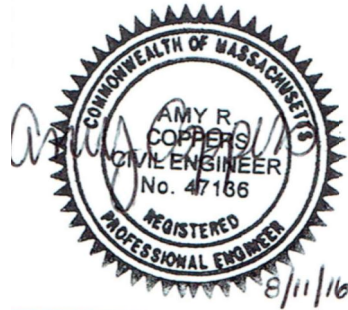


LOCATION PLAN
SCALE: 1"=100'



PETER A. SELLERS, EXECUTIVE DIRECTOR OF PUBLIC WORKS
WILLIAM R. SEDEWITZ, P.E., CHIEF ENGINEER

WRIGHT-PIERCE 
Engineering a Better Environment
Offices Throughout New England
888.621.8156 | www.wright-pierce.com



FOR REVIEW _____
FOR BIDDING _____
WP PROJECT No. 13367A

GENERAL NOTES

1. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES, COMMUNICATION LINES, AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED.
2. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
3. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY(S). NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES. THE CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY POLES WITH THE RESPECTIVE UTILITY.
4. DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS AND STATIONING SHALL PREVAIL. TOPOGRAPHIC SURVEY PROVIDED BY WHITMAN & BINGHAM ASSOCIATES OF LEOMINSTER, MA. HORIZONTAL COORDINATES ARE IN MASSACHUSETTS STATE PLANE GRID COORDINATE SYSTEM (NAD 83) AND THE VERTICAL DATUM IS BASED ON NGVD 1929.
5. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING PROPERTY LINES. ALL GRUBBINGS AND EXCESS EXCAVATED MATERIAL WILL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, AT FACILITIES APPROVED BY THE ENGINEER AND OWNER, IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION. ALL DISTURBED EARTH SURFACES ARE TO BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL IS TO BE IN A MANNER THAT WILL MINIMIZE EROSION. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE EXCAVATED MATERIAL AT A SITE WHICH IS IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS. MATERIALS AND METHODS USED FOR TEMPORARY EROSION CONTROL SHALL BE AS SPECIFIED BY THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES."
7. COMPACTION TESTS SHALL BE PERFORMED AS SPECIFIED. ANY SETTLEMENT OCCURRING WITHIN ONE YEAR OF SUBSTANTIAL COMPLETION OF THE PROJECT WILL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. CONTRACTOR SHALL CONTROL DUST AND SHALL NOT TRACK OR SPILL EARTH AND DEBRIS ON PRIVATE/PUBLIC STREETS OUTSIDE THE PROJECT AREA.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTLING ALL EXISTING PROPERTY MONUMENTATION THAT IS DISTURBED BY THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR REGISTERED IN THE STATE OF MASSACHUSETTS.
10. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
11. SEE APPENDIX B OF THE SPECIFICATIONS FOR BORING LOGS. THESE ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
12. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.

DEMOLITION NOTES

1. REFER TO ARCHITECTURAL, STRUCTURAL, PROCESS, MECHANICAL AND ELECTRICAL DRAWINGS FOR SPECIFIC INFORMATION REGARDING DEMOLITION AND REMOVAL. THESE NOTES ARE USED AS A GENERAL GUIDANCE ONLY.
2. DEMOLISH/REMOVE EXISTING TANK, PIPING AND OTHER EQUIPMENT AND MATERIALS AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" SHALL BE FILLED WITH FLOWABLE FILL OR MAY BE REMOVED AS NEEDED TO INSTALL NEW UTILITIES AND STRUCTURES OR AS APPROVED BY THE ENGINEER. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED AND DISPOSED OF PROPERLY.
3. ALL EXISTING PIPING AND UTILITIES WHICH ARE BENEATH PROPOSED STRUCTURES, AND ARE TO BE ABANDONED, SHALL BE REMOVED TO A MINIMUM OF 5 FEET OUTSIDE OF THE STRUCTURE. PIPE AND UTILITIES BENEATH PROPOSED STRUCTURES THAT ARE TO REMAIN SHALL BE CONCRETE ENCASED, UNLESS OTHERWISE INDICATED.
4. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED TANK MATERIALS, PIPING, EQUIPMENT AND APPURTENANCES. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION FOR THEIR USE. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE OWNER/ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM THE WORK, PRECIPITATION, AND DEWATERING OPERATIONS.
7. BORINGS INDICATE THE PRESENCE OF AN 8" REINFORCED CONCRETE LAYER BENEATH 5" OF PAVEMENT IN INDIAN HEAD HEIGHTS. CONTRACTOR SHOULD ASSUME REINFORCED CONCRETE EXTENDS THE FULL WIDTH AND LENGTH OF INDIAN HEIGHTS AND WITHIN THE INTERSECTION OF INDIAN HEAD ROAD.

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE STOCKPILES, ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT.

MATCHLINE AND CONTINUATION LINE NOTES

1. MATCHLINES REPRESENT A BREAK IN THE DRAWING PLAN AND PROFILE ALONG THE STREET CALLED OUT IN THE TITLEBLOCK.
2. CONTINUATION LINES ARE SHOWN SOLELY FOR THE PURPOSE OF DIRECTING THE CONTRACTOR TO OTHER AREAS OF THE PROJECT WHICH ARE NOT CALLED OUT IN THE TITLEBLOCK.

SITE GRADING NOTES

1. STRIPPING OF TOPSOIL (LOAM) SHALL BE IN ACCORDANCE WITH DIVISION 2 OF THE SPECIFICATION, OUTSIDE OF CONTAMINATED SOIL AREAS.
2. ALL ROAD AND PARKING AREA SURFACES SHALL PITCH 1/4 INCH PER FOOT MINIMUM UNLESS OTHERWISE NOTED.
3. ALL AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4 INCHES OF SOIL SHALL BE LOAM, UNLESS OTHERWISE NOTED.
4. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
5. ALL VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.

SITE LAYOUT NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS. THE ENGINEER WILL PROVIDE TWO POINTS THAT DEFINE THE HORIZONTAL CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. IN GENERAL, THE GIVEN STRUCTURE LOCATIONS ARE TO THE OUTSIDE FACE OF THE STRUCTURE FOUNDATION WALL, NOT FOOTINGS. REFER TO THE STRUCTURAL DRAWINGS FOR BUILDING AND STRUCTURE DIMENSIONS. RADII SHOWN FOR ROADS ARE TO EDGE OF PAVEMENT.
3. THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT HIS ACTIVITIES TO THESE AREAS.
4. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
5. BOLLARD LOCATIONS SHOWN ARE APPROXIMATE. COORDINATE LOCATIONS WITH THE ENGINEER.

SITE PIPING NOTES

1. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS IN PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS (RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY). PROVIDE ALL BENDS (HORIZONTAL AND VERTICAL) AS REQUIRED TO MEET THE GRADES AND ALIGNMENT INDICATED ON THE DRAWINGS.
2. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING PIPING AND UTILITIES IN THE FIELD BY TEST PIT EXCAVATION PRIOR TO COMMENCING INSTALLATION OF ANY OF THE NEW PIPING AFFECTED. WHERE NEW PIPE CONNECTS TO EXISTING PIPING OR STRUCTURAL PENETRATION, CONTRACTOR SHALL VERIFY ELEVATION BY TEST PIT, AS REQUIRED, PRIOR TO INSTALLATION OF ANY OF THE ASSOCIATED/AFFECTED NEW PIPING. IDENTIFIED CONFLICTS WITH EXISTING PIPING AND UTILITIES WILL BE REVIEWED WITH THE ENGINEER PRIOR TO COMMENCING INSTALLATION. THE HORIZONTAL ALIGNMENT OF NEW PIPING MAY BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR REVIEW AND ACCEPTANCE OF THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
3. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER OF WATER MAIN IS LESS THAN 4 FEET.
4. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
5. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED.

ROADWAY RESTORATION NOTES

1. OPEN TRENCHES IN THE ROADWAY MUST BE BACKFILLED AND PAVED WITH HOT MIX AT THE END OF EACH WORKDAY, UNLESS PERMISSION TO LEAVE THEM OPEN IS OBTAINED AND ISSUED IN WRITING BY THE OWNER. AT THE END OF EACH WORK WEEK, TRENCHES MUST BE PAVED WITH A HOT MIX. IN ADDITION, ALL STREETS MUST BE PAVED WITH HOT MIX PRIOR TO WINTER SHUTDOWN.
2. PAVEMENT WHICH IS TO BE REMOVED IS TO BE SAWCUT.
3. ALL DISTURBED PAVEMENT MUST BE REPLACED OR REPAIRED ON A DAILY BASIS WITH EITHER A HOT PATCH MIX OR HOT MIX. ALL COLD PATCH SHALL BE REMOVED AND REPLACED ON A WEEKLY BASIS AT THE END OF EACH WORK WEEK.
4. ALL CURBING DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AND RESTORED AS SPECIFIED.

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES UNLESS OTHERWISE APPROVED. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER AND ENGINEER PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE CONSULTED AT LEAST 48 HOURS IN ADVANCE OF ANY PROPOSED STREET CLOSING OR DETOUR.
2. CONTRACTOR SHALL INSTALL AND MAINTAIN PERMANENT AND TEMPORARY TRAFFIC CONTROL DEVICES AS NECESSARY AND IN A MANNER CONSISTENT WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
3. OTHER TRAFFIC CONTROL AND SITE ACCESS REQUIREMENTS ARE DETAILED IN THE APPLICABLE SECTIONS WITHIN DIVISION I.

LEGEND

EXISTING	PROPERTY/ROW LINE	PROPOSED
	PROPERTY/ROW LINE	
	SETBACK LINE	
	EASEMENT LINE	
	CENTERLINE	
	EDGE OF PAVEMENT	
	CURBING	
	EDGE OF GRAVEL	
	EDGE OF CONCRETE	
	CONTOUR	
	BUILDING	
	STONEWALL	
	TREELINE	
	CHAIN LINK FENCE	
	STOCKADE FENCE	
	BARB WIRE FENCE	
	RETAINING WALL	
	GUARDRAIL	
	SEWER	
	SEWER FORCE MAIN	
	GAS	
	WATER	
	STORM DRAIN	
	UNDERDRAIN	
	CULVERT	
	UNDERGROUND ELECTRIC	
	OVERHEAD ELECTRIC	
	IRON PIPE/REBAR	
	DRILLHOLE	
	MONUMENT	
	SURVEY CONTROL POINT	
	SPOT ELEVATION	
	SEWER MANHOLE	
	DRAINAGE MANHOLE	
	CATCH BASIN	
	ELECTRIC MANHOLE	
	TELEPHONE MANHOLE	
	SHUTOFF VALVE	
	BUTTERFLY VALVE	
	WATER SERVICE SHUTOFF	
	YARD HYDRANT	
	HYDRANT	
	UTILITY POLE	
	UTILITY POLE W/ GUY	
	UTILITY POLE W/ LIGHT	
	LIGHT POLE	
	BOLLARD	
	FLAGPOLE	
	CONIFEROUS TREE	
	DECIDUOUS TREE	
	SHRUB	
	EDGE OF WATER	
	STREAM	
	EDGE OF WETLANDS	
	FLOODPLAIN	
	WETLANDS	
	DRAINAGE FLOW	
	DRAINAGE SWALE	
	PAVEMENT MARKINGS	
	SIGN	
	MAILBOX	
	TEMPORARY BENCH MARK	
	TEST PIT	
	TEST BORING	
	TEST PROBE	
	MONITORING WELL	
	LIMIT OF WORK	
	SILT FENCE	
	RIPRAP	
	RAILROAD	
	MATCHLINE	
	ROCK OUTCROP	
	PIPE SPOT ELEVATION	
	CULVERT/UNDERDRAIN	
	PIPING	
	LARGE DIA PIPING (18"+)	
	PIPE PREVIOUSLY ABANDONED	
	PIPING TO BE DEMOLISHED	
	PIPING TO ABANDON	
	PAVEMENT REMOVAL	
	GENERAL DEMOLITION	
	CLEARING & GRUBBING	

ABBREVIATIONS

&	AND
ø, DIA	DIAMETER
BLDG	BUILDING
BOF	BOTTOM OF FOOTING
CB	CATCH BASIN
CEN	CENTER
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
DEMO	DEMOLITION
DMH	DRAIN MANHOLE
DI/DICL	DUCTILE IRON/DUCTILE IRON CEMENT LINED
DR	DRAIN
DWG	DRAWING
EL	ELEVATION
EMH	ELECTRIC MANHOLE
FM	FORCE MAIN
FT	FEET
G	GAS
HYD	HYDRANT
IN	INCH
INV	INVERT
L	LENGTH
LP	LIGHT POLE
MH	MANHOLE
MIN	MINIMUM
MW	MONITORING WELL
N	NORTH
NGVD	NATIONAL GEODETIC VERTICAL DATUM
N/A	NOT AVAILABLE/APPLICABLE
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
S	SLOPE, SEWER
SD	STORM DRAIN
SF	SQUARE FEET
SMH	SANITARY SEWER MANHOLE
STA	STATION
TBM	TEMPORARY BENCH MARK
TOP	TOP OF FOUNDATION
TYP	TYPICAL
UD	UNDERDRAIN
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UP	UTILITY POLE
VC	VITRIFIED CLAY
W/	WITH

LIST OF CONTACTS

DIG SAFE:
TEL. 1-800-DIGSAFE

WATER/SEWER/DRAIN:
PUBLIC WORKS DEPARTMENT
100 WESTERN AVENUE
FRAMINGHAM, MA 01702
(508) 532-5600

POLICE DEPARTMENT:
1 WILLIAM WELCH WAY
FRAMINGHAM, MA 01702
(508) 532-5926

FIRE DEPARTMENT:
10 LORING DRIVE
FIRE HEADQUARTERS
FRAMINGHAM, MA 01702
(508) 532-5930

ELECTRIC:
EVERSOURCE ELECTRIC
1 NSTAR WAY
OFFICE SE 310
WESTWOOD, MA 02090
(508)305-6926

GAS:
EVERSOURCE GAS
1 NSTAR WAY
OFFICE SUM NE 830
WESTWOOD, MA 02090
(508)305-6884

CABLE:
RCN
173 BEDFORD STREET
LEXINGTON, MA 0240
(781)652-8951

CABLE:
COMCAST
14 BURR STREET
FRAMINGHAM, MA 01701
(800)266-2278

TELEPHONE
VERIZON
146 LELAND STREET
FRAMINGHAM, MA 01702
(508)820-3581


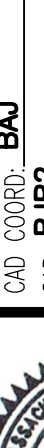
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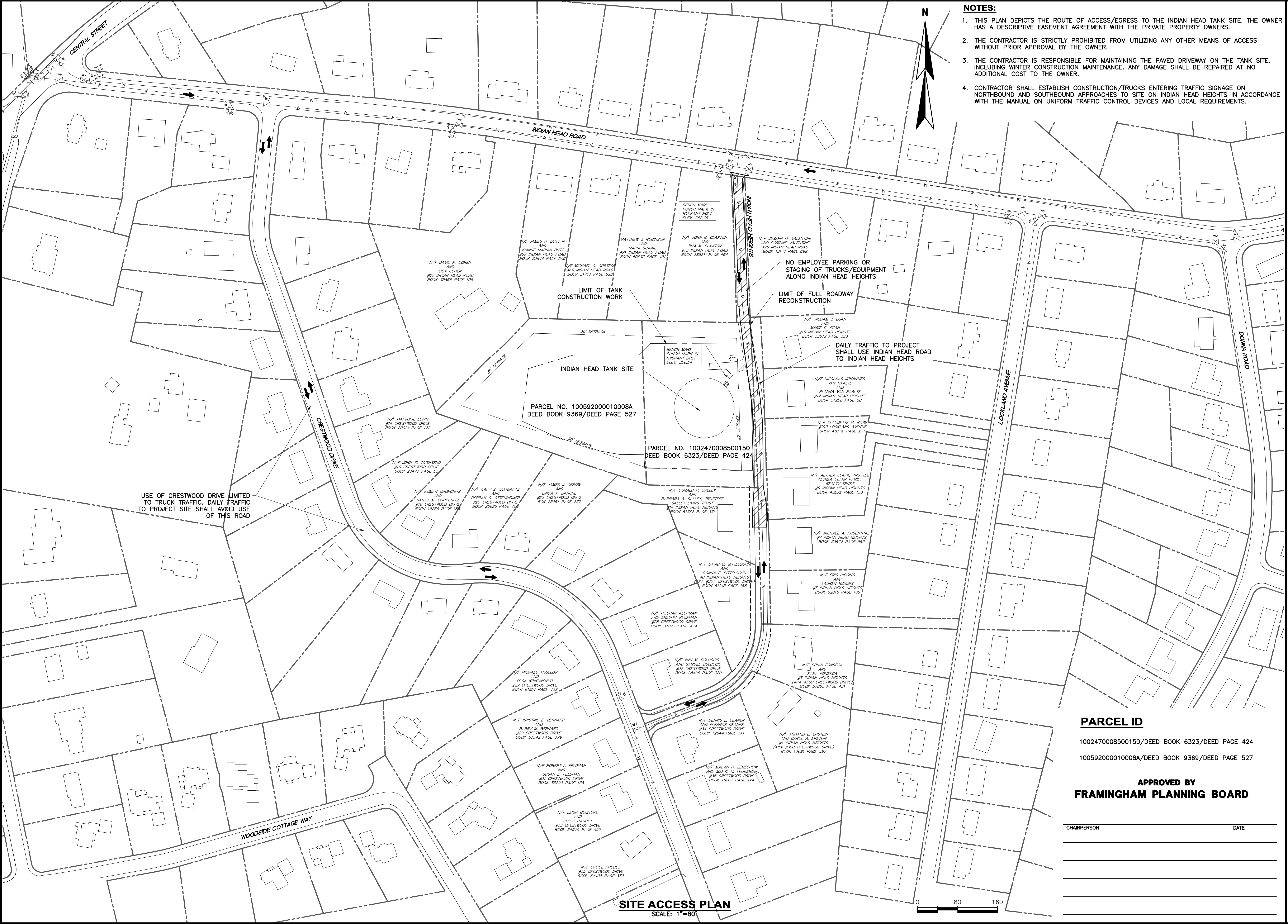
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**APPROVED BY
FRAMINGHAM PLANNING BOARD**

HAIRPERSON	DATE

DRAWING C-1	FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK	 WRIGHT-PIERCE Engineering a Better Environment Offices Throughout New England 888.621.8156 www.wright-pierce.com		DESIGNED BY: CAD COORD: BAJ CAD: RUB2 CHECKED BY: DATE: 8/16 APPROVED BY: RW DATE: 8/16 PROJECT NO.: 13567B	NO. _____	SUBMISSIONS/REVISIONS	DATE
	GENERAL NOTES, CIVIL LEGEND AND ABBREVIATIONS			PLANNING BOARD SUBMISSION	8/16		



- NOTES:**
1. THIS PLAN DEPICTS THE ROUTE OF ACCESS/EGRESS TO THE INDIAN HEAD TANK SITE. THE OWNER HAS A DESCRIPTIVE EASEMENT AGREEMENT WITH THE PRIVATE PROPERTY OWNERS.
 2. THE CONTRACTOR IS STRICTLY PROHIBITED FROM UTILIZING ANY OTHER MEANS OF ACCESS WITHOUT PRIOR APPROVAL BY THE OWNER.
 3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE PAVED DRIVEWAY ON THE TANK SITE, INCLUDING WINTER CONSTRUCTION MAINTENANCE. ANY DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
 4. CONTRACTOR SHALL ESTABLISH CONSTRUCTION/TRUCKS ENTERING TRAFFIC SIGNAGE ON NORTHBOUND AND SOUTHBOUND APPROACHES TO SITE ON INDIAN HEAD HEIGHTS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LOCAL REQUIREMENTS.

USE OF CRESTWOOD DRIVE LIMITED TO TRUCK TRAFFIC. DAILY TRAFFIC TO PROJECT SITE SHALL AVOID USE OF THIS ROAD

NO EMPLOYEE PARKING OR STAGING OF TRUCKS/EQUIPMENT ALONG INDIAN HEAD HEIGHTS

DAILY TRAFFIC TO PROJECT SHALL USE INDIAN HEAD ROAD TO INDIAN HEAD HEIGHTS

PARCEL ID

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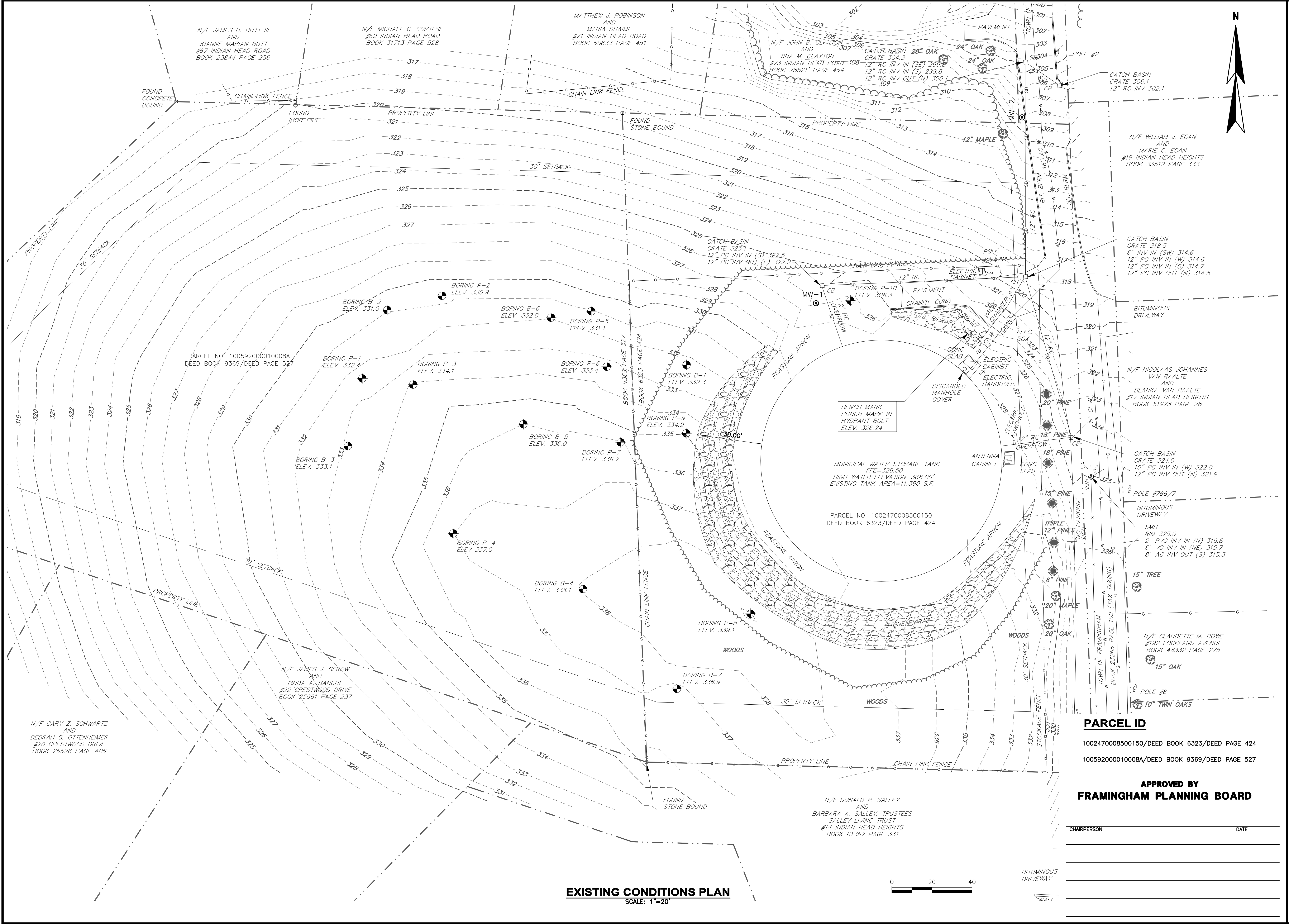
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FRAMINGHAM PLANNING BOARD

CHAIRPERSON	DATE

FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK	SITING PLAN	DRAWING C-2	888.621.8156 www.wright-pierce.com	WRIGHT-PIERCE Engineering a Better Environment Offices Throughout New England		DESIGNED BY: CAD: RJBZ	NO. 13367	PLANNING BOARD SUBMISSION	APPROVED BY: RJBZ	DATE: 8/16	PROJECT NO: 13367B
						CHECKED BY: DATE: 8/16	APPROVED BY: RJBZ	DATE: 8/16	PROJECT NO: 13367B		



FRAMINGHAM, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
20 & 22 INDIAN HEAD HEIGHTS
INDIAN HEAD HEIGHTS WATER STORAGE TANK

EXISTING CONDITIONS PLAN

WRIGHT-PIERCE
Engineering a Better Environment
Offices Throughout New England
888.621.8156 | www.wright-pierce.com

APPROVED BY
FRAMINGHAM PLANNING BOARD

CHAIRPERSON _____ DATE _____

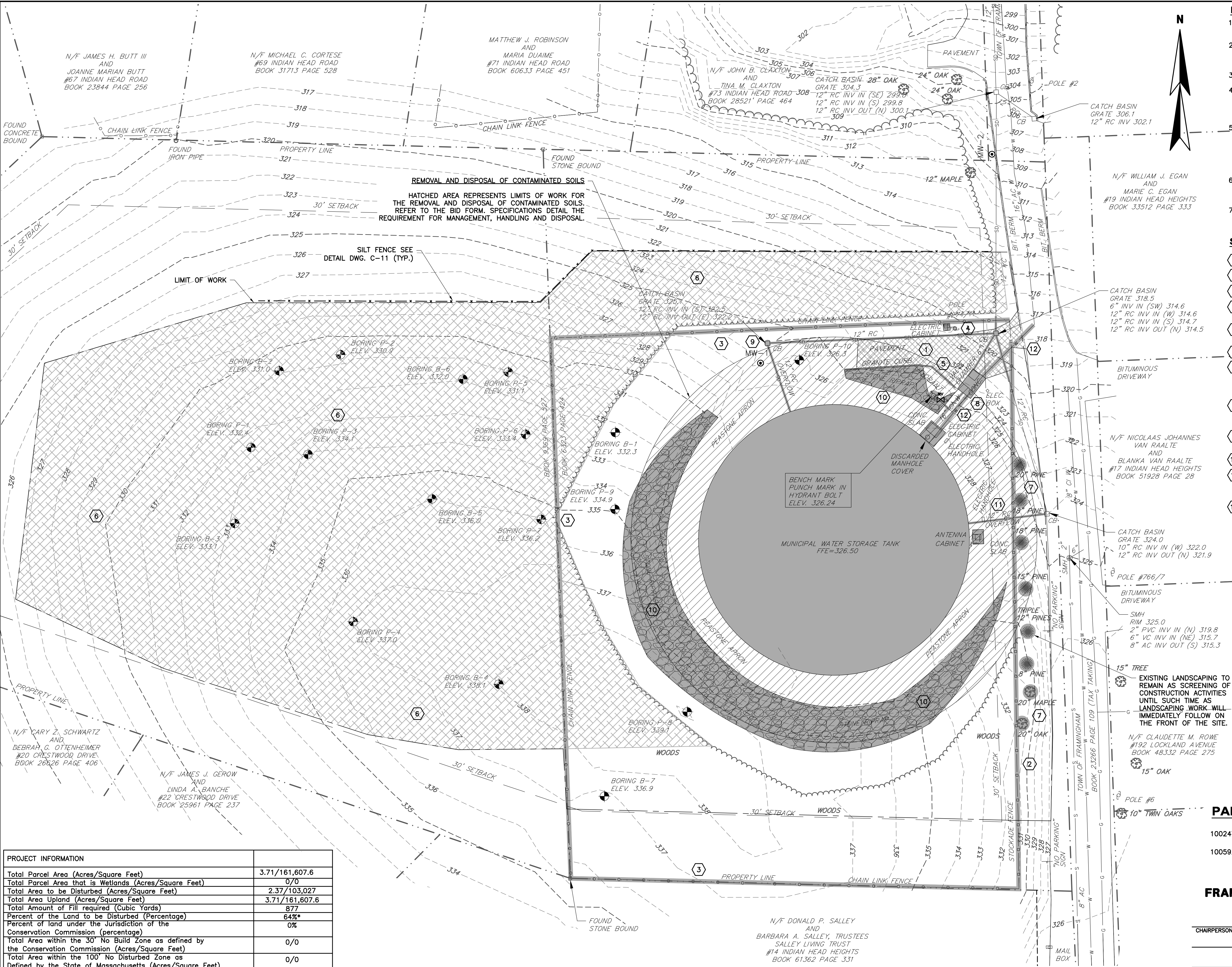
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NO. SUBMISSIONS/REVISIONS
PLANNING BOARD SUBMISSION

DATE: 8/16

DRAWING
C-3



- NOTES:**
1. REFER TO DRAWING C-1 FOR GENERAL DEMOLITION NOTES, LEGEND AND ABBREVIATIONS.
 2. THE EXISTING TANK AND APPURTENANCES SHALL REMAIN IN SERVICE UNTIL TANK NO. 1 IS COMPLETE AND OPERATIONAL.
 3. REFER TO DIVISION I FOR PHASING REQUIREMENTS.
 4. EXISTING CATCH BASINS ON THE TANK SITE SHALL REMAIN DURING CONSTRUCTION OF TANK NO. 1. PROTECT STRUCTURES WITH STEEL PLATING FOR CONSTRUCTION OF TEMPORARY FIELD ENTRANCE.
 5. SECURE TEMPORARY FENCING WITH A SCREENING FABRIC TO BE UTILIZED DURING CONSTRUCTION. PORTIONS OF THE EXISTING FENCE CAN SERVE AS TEMPORARY CONSTRUCTION FENCING PROVIDED IT IS SCREENED AND DOES NOT INHIBIT CONSTRUCTION ACTIVITIES.
 6. SEE ADDITIONAL DEMOLITION NOTES ON CIVIL DRAWINGS AS THEY PERTAIN TO CONSTRUCTION PHASING OF THE TANKS.
 7. INSTALL SILT SACKS FOR CATCH BASINS.

- SITE DEMOLITION NOTES:**
- 1 REMOVE/DEMOLISH EXISTING PAVED AREA.
 - 2 REMOVE/DEMOLISH EXISTING STOCKADE FENCE.
 - 3 REMOVE/DEMOLISH EXISTING CHAIN LINK FENCE
 - 4 REMOVE/DEMOLISH EXISTING POLE AND ELECTRICAL CABINET.
 - 5 REMOVE EXISTING GRANITE CURBING. STOCKPILE CURBING AT THE DIRECTION OF THE OWNER.
 - 6 CLEAR AND GRUB TO EXTENTS SHOWN.
 - 7 AFTER COMPLETION OF TANK NO. 2 EXISTING LANDSCAPING AND PLANTINGS SHALL BE REMOVED IN THEIR ENTIRETY. SEE LANDSCAPING PLAN FOR PROPOSED LANDSCAPING AND WORK IN THIS AREA.
 - 8 REMOVE/DEMOLISH EXISTING ALTITUDE VALVE CHAMBER IN IT'S ENTIRETY FOLLOWING COMPLETION OF TANK NO. 1 AND IT IS FULLY OPERATIONAL.
 - 9 REMOVE/DEMOLISH EXISTING TANK OVERFLOW AND DRAINAGE SYSTEM UPON COMPLETION OF TANK NO. 1.
 - 10 REMOVE EXISTING RIPRAP.
 - 11 REMOVE/DEMOLISH EXISTING 12" OVERFLOW AFTER TANK NO. 1 IS OPERATIONAL AND PLUG OPENING AT EXISTING CATCH BASIN.
 - 12 AFTER TANK NO.1 AND THE PROPOSED 16" DICL WATER MAIN ARE IN SERVICE INCLUDING THE ALTITUDE VALVE AND TANK CONTROLS, OUT EXISTING 16" A.C. MAIN AT BOTH ENDS AND FILL WITH CONTROLLED DENSITY FILL.

PARCEL ID

1002470008500150/DEED BOOK 6323/DEED PAGE 424

100592000010008A/DEED BOOK 9369/DEED PAGE 527

APPROVED BY
FRAMINGHAM PLANNING BOARD

CHAIRPERSON	DATE

PROJECT INFORMATION	
Total Parcel Area (Acres/Square Feet)	3.71/161,607.6
Total Parcel Area that is Wetlands (Acres/Square Feet)	0/0
Total Area to be Disturbed (Acres/Square Feet)	2.37/103,027
Total Area Upland (Acres/Square Feet)	3.71/161,607.6
Total Amount of Fill required (Cubic Yards)	877
Percent of the Land to be Disturbed (Percentage)	64%*
Percent of land under the Jurisdiction of the Conservation Commission (percentage)	0%
Total Area within the 30' No Build Zone as defined by the Conservation Commission (Acres/Square Feet)	0/0
Total Area within the 100' No Disturbed Zone as Defined by the State of Massachusetts (Acres/Square Feet)	0/0
Total Area within the 125' No Disturbed Zone as defined by the Framingham Conservation Commission (Acres/ Square Feet)	0/0
Type of Fill to be used	Loam, Structural Fill, Pavement Gravel Subbase

*The percentage of the land to be disturbed includes the existing disturbed areas and the proposed disturbed areas.

DEMOLITION PLAN
SCALE: 1"=20'

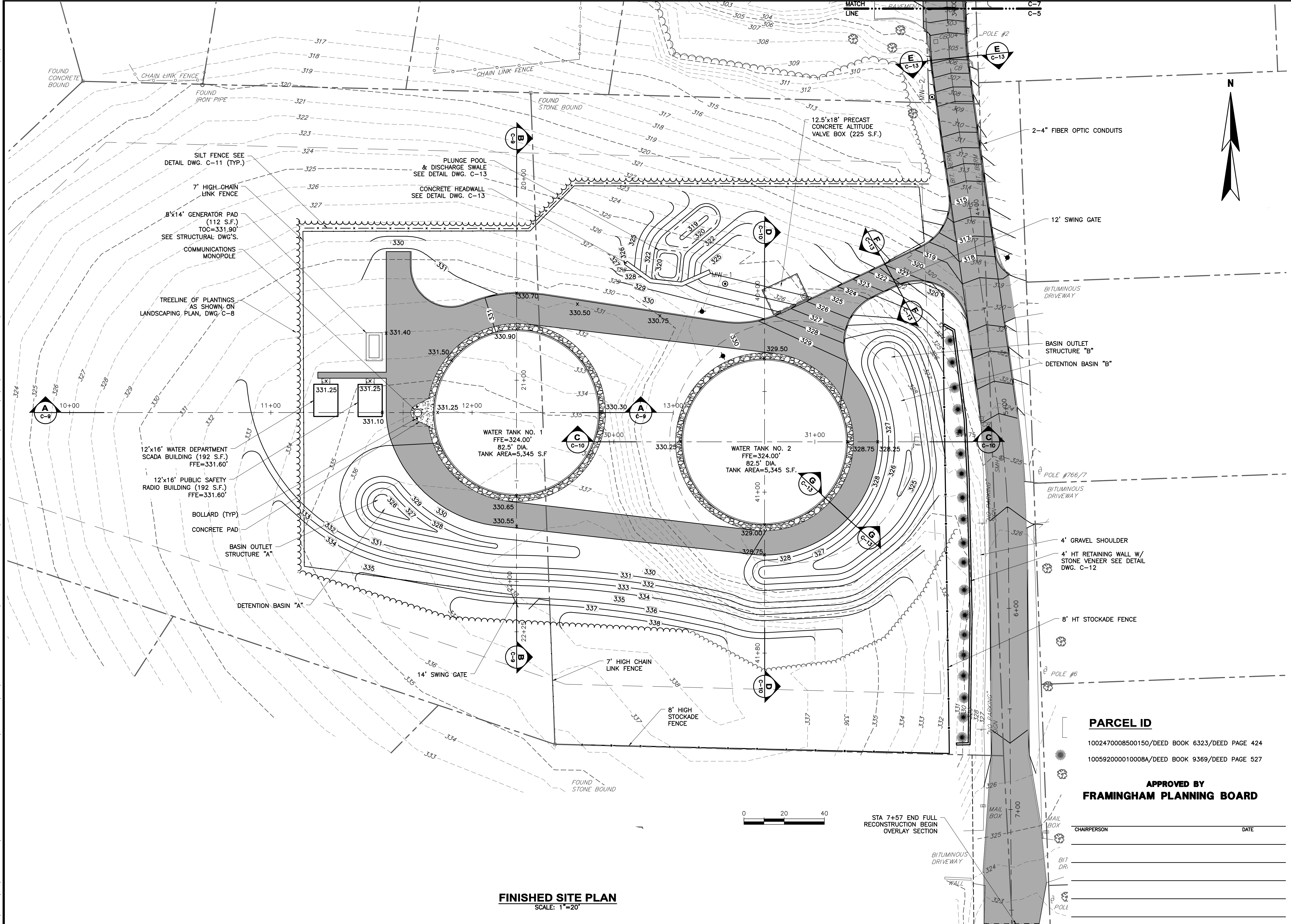
FRAMINGHAM, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
20 & 22 INDIAN HEAD HEIGHTS
INDIAN HEAD HEIGHTS WATER STORAGE TANK
DEMOLITION PLAN

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DRAWING
C-4

NO	DATE	APPROVED	REVISIONS
1	8/16	RJW	

DESIGNED BY: BAJ
CAD COORD: RJW
CHECKED BY: RJW
DATE: 8/16
APPROVED BY: RJW
DATE: 8/16
PROJECT NO: 13367B



FINISHED SITE PLAN
SCALE: 1"=20'

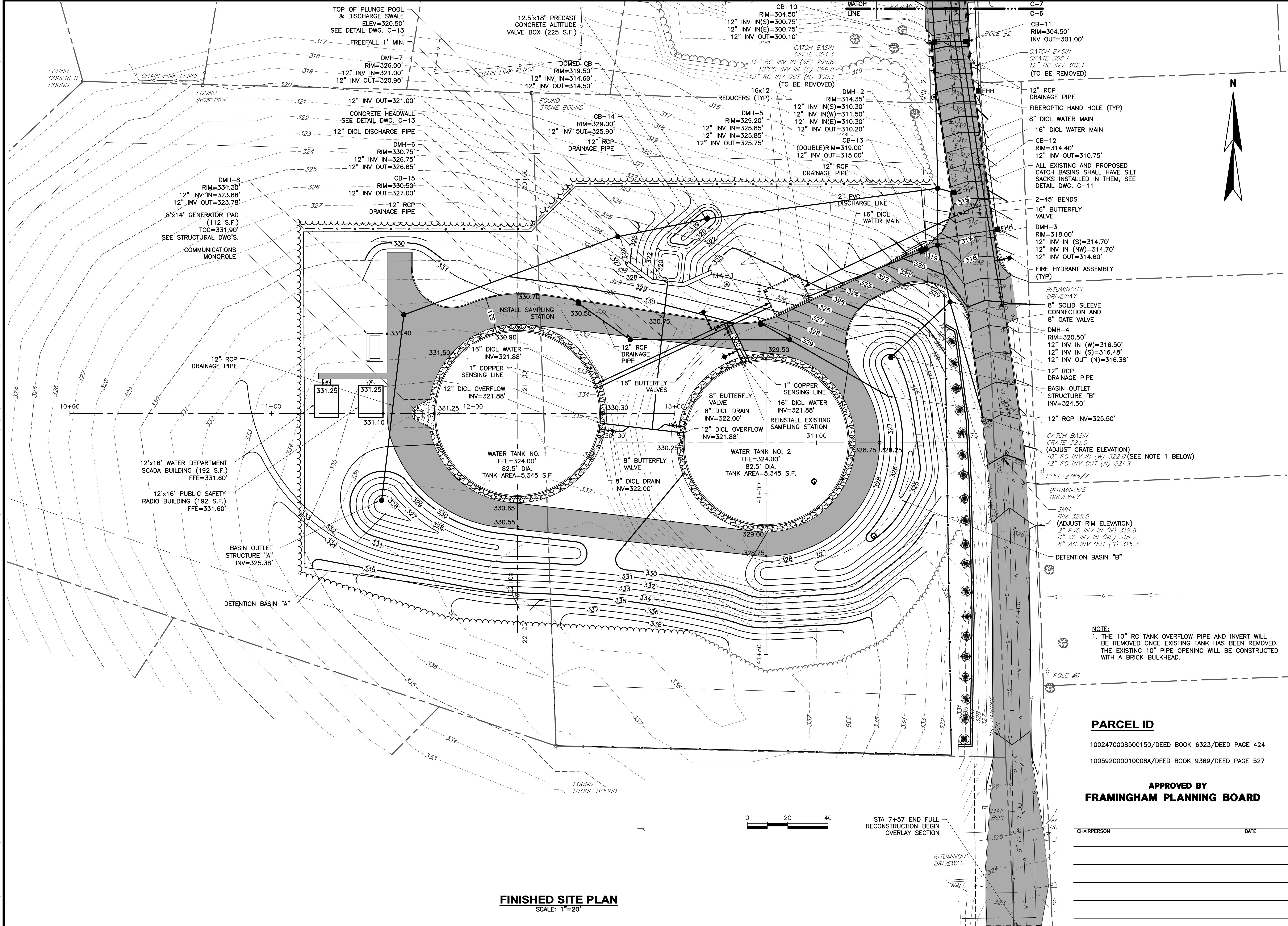
SUBMISSIONS/REVISIONS		DATE
NO.	DESCRIPTION	DATE
1	PLANNING BOARD SUBMISSION	8/16

DESIGNED BY: BAJ	CAD CORP: RUB2	CHECKED BY: RUB2	DATE: 8/16	APPROVED BY: RUB2	DATE: 8/16	PROJECT NO: 13367B
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FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK	FINISHED SITE GRADING PLAN
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DRAWING C-5	
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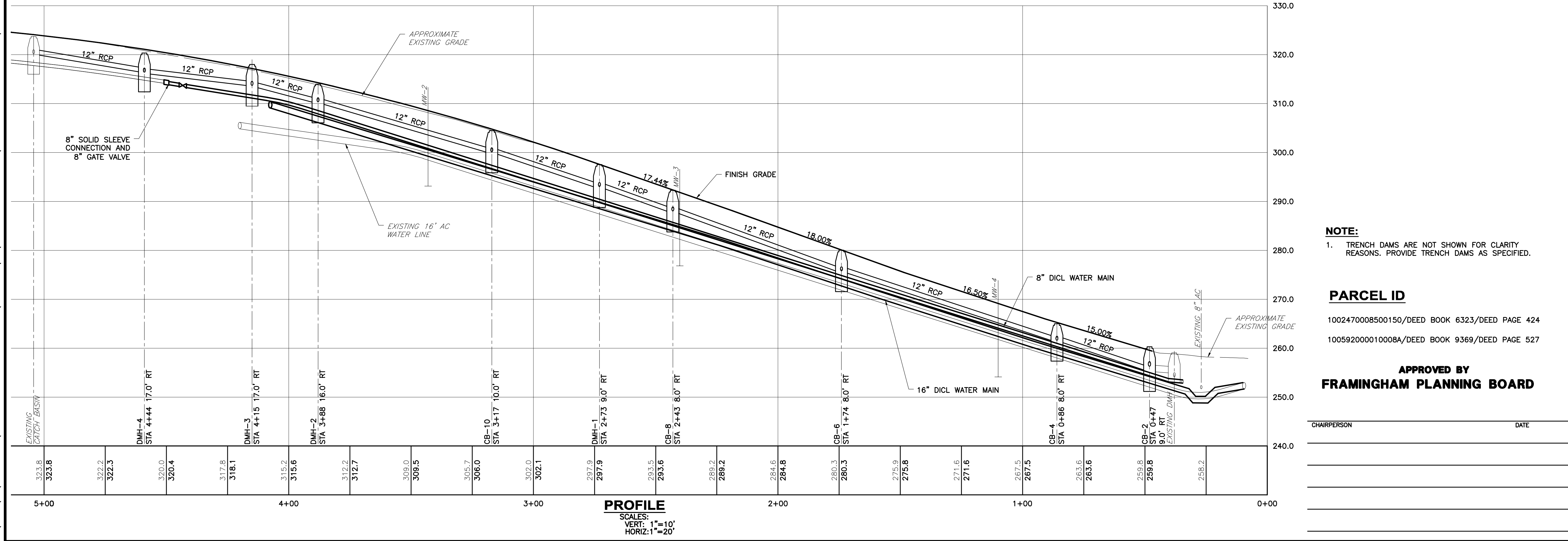
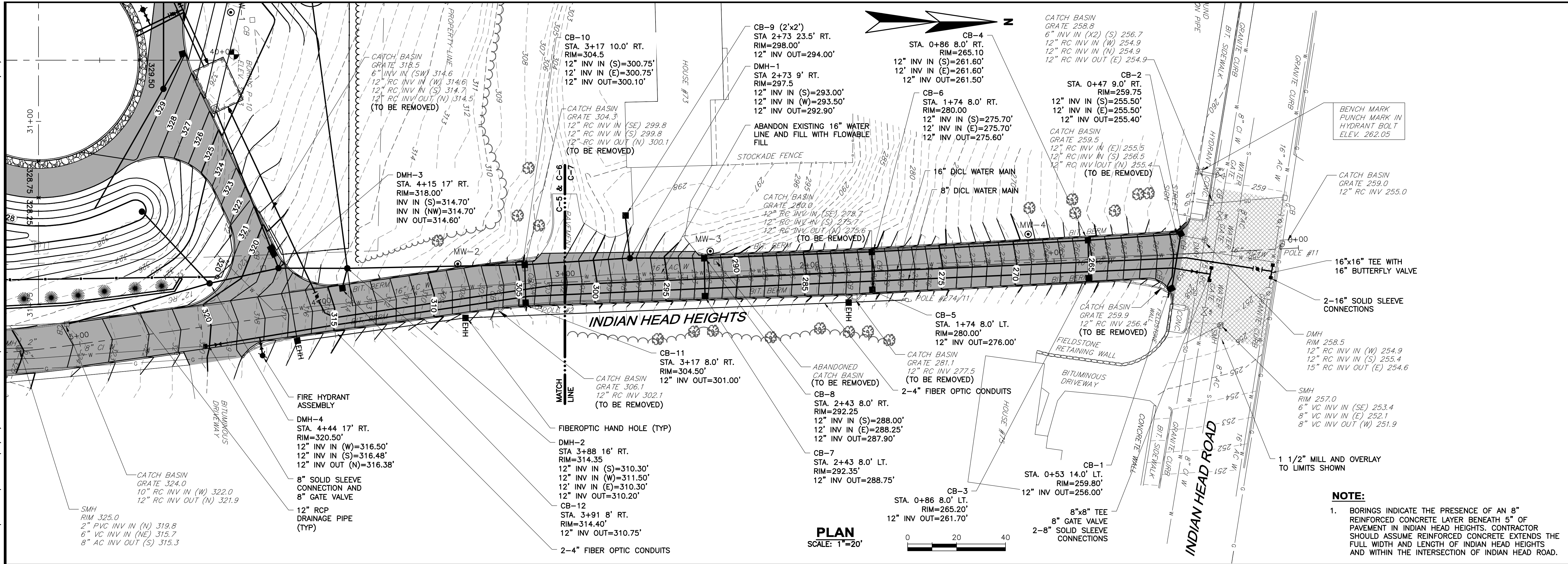
FINISHED SITE PLAN
SCALE: 1"=20'


DESIGNED BY: BAJ		DATE: 8/16
CAD: RUB2		DATE: 8/16
CHECKED BY: RUB		DATE: 8/16
APPROVED BY: RUB		DATE: 8/16
PROJECT NO: 13367B		

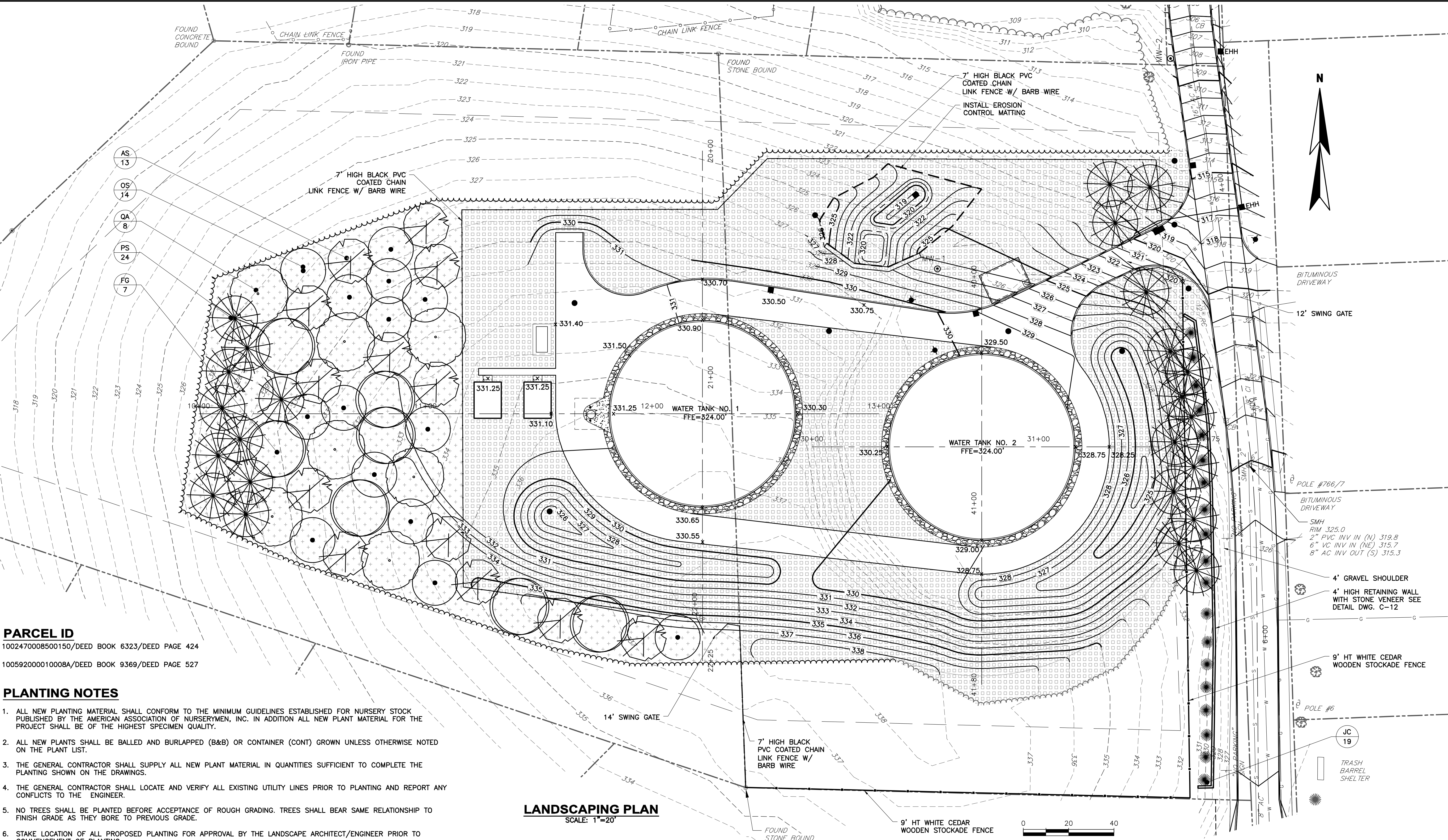
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FRAMINGHAM, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
20 & 22 INDIAN HEAD HEIGHTS
INDIAN HEAD HEIGHTS WATER STORAGE TANK
SITE UTILITIES PLAN

DRAWING
C-6



<p>FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK INDIAN HEAD HEIGHTS PLAN AND PROFILE STA. 0+00 TO STA. 5+00</p>		<p>WRIGHT-PIERCE Engineering a Better Environment Offices Throughout New England 888.621.8156 www.wright-pierce.com</p>				<p>DESIGNED BY: CAD CORRO, BAJ CAD: RUB2 CHECKED BY: CUBERS DATE: 8/16 APPROVED BY: RWJ DATE: 8/16 PROJECT NO: 13667B</p>		<p>NO. _____ PLANNING BOARD SUBMISSION SUBMISSIONS/REVISIONS</p>		<p>APPD. DATE ROW 8/16</p>	
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PARCEL ID
1002470008500150/DEED BOOK 6323/DEED PAGE 424
100592000010008A/DEED BOOK 9369/DEED PAGE 527

- PLANTING NOTES**
- ALL NEW PLANTING MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN ADDITION ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF THE HIGHEST SPECIMEN QUALITY.
 - ALL NEW PLANTS SHALL BE BALLED AND BURLAPPED (B&B) OR CONTAINER (CONT) GROWN UNLESS OTHERWISE NOTED ON THE PLANT LIST.
 - THE GENERAL CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
 - THE GENERAL CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE ENGINEER.
 - NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO PREVIOUS GRADE.
 - STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY THE LANDSCAPE ARCHITECT/ENGINEER PRIOR TO COMMENCEMENT OF PLANTING.
 - ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED, PRUNED AND FERTILIZED PER THE SPECIFICATIONS.
 - ALL LAWN AREAS DISTURBED BY CONSTRUCTION OPERATIONS INSIDE AND OUTSIDE THE LIMIT OF WORK SHALL BE LOAMED AND SEEDED AS SPECIFIED.
 - ALL PLANT BEDS ARE TO RECEIVE THREE INCHES (3") OF SHREDDED BARK MULCH AS SPECIFIED.
 - ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AS APPROVED BY THE LANDSCAPE ARCHITECT/ENGINEER.
 - ALL AREAS TO BE SEEDED SHALL RECEIVE SOIL PREPARATION AS SPECIFIED PRIOR TO SEEDING, UNLESS OTHERWISE NOTED ON PLAN.
 - PREPARE ALL TREE/SHRUB PITS WITH PLANTING SOIL AND FERTILIZER TO A MINIMUM DEPTH MATCHING THE DEPTH OF ROOT BALLS.
 - ALL AREAS TO BE SEEDED WITH LAWN MIX AND THE ROADSIDE MIX SHALL RECEIVE 6" TOPSOIL PRIOR TO SEEDING.
 - SHREDDED BARK MULCH 3" DIAMETER AROUND EACH TREE
 - STAKE OUT LOCATION OF ALL PLANT MATERIAL WITH ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - PLANT SYMBOLS INDICATE AFTER 5-10 YEARS AFTER PLANTING.

LANDSCAPING PLAN
SCALE: 1"=20'

PLANT LIST

KEY	QTY	SCIENTIFIC NAME COMMON NAME	SIZE	ROOTING
TREES				
AS	13	ACER SACCHARUM SUGAR MAPLE	3.5"-4" CAL.	B&B
FG	7	FAGUS GRANDIFOLIA AMERICAN BEECH	2.5"-3" CAL.	B&B
PS	24	PICEA STROBUS WHITE PINE	15' HT	B&B
OS	14	OSTRYA VIRGINIANA AMERICAN HOP HORNBEAM	2.5"-3" CAL.	B&B
QA	8	QUERCUS ALBA WHITE OAK	3.5"-4" CAL.	B&B
SHRUBS				
JC	19	JUNIPERUS COMMUNIS COMMON JUNIPER	2' - 3' HT	CONT/B&B

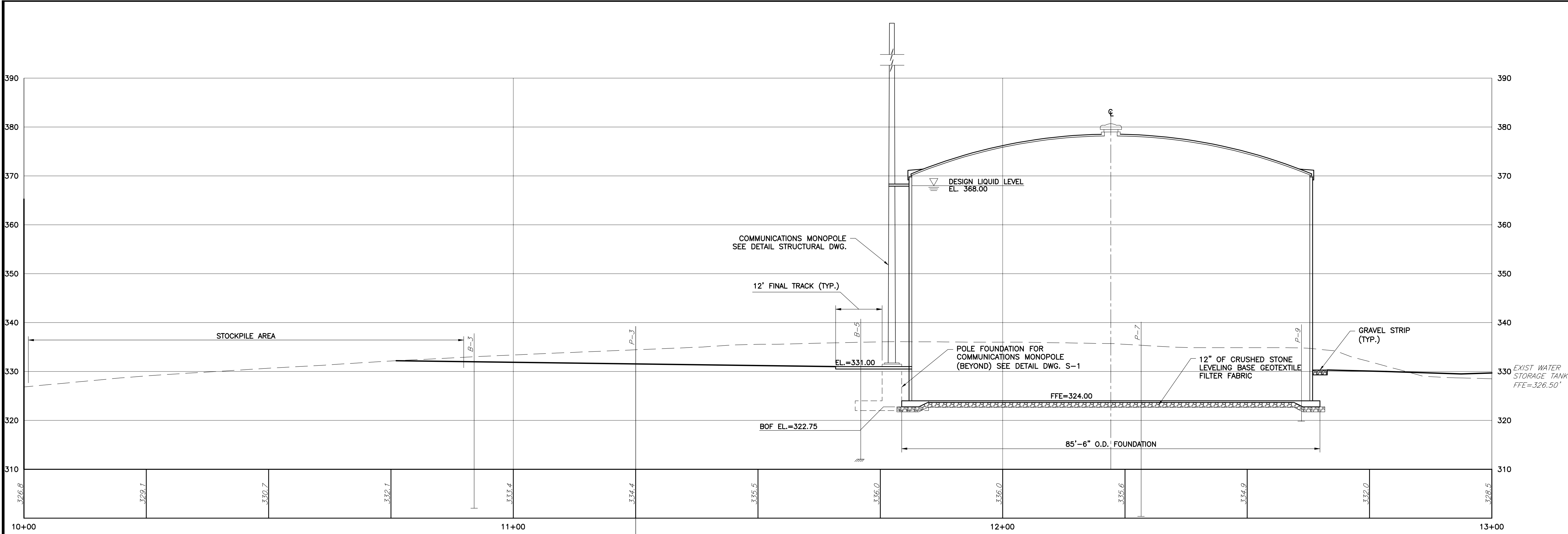
LEGEND

- AREA TO BE CONSTRUCTED WITH 6" MINIMUM DEPTH OF LOAM, SEEDED WITH NEW ENGLAND CONSERVATION LAWN SEED MIX
- AREA TO BE CONSTRUCTED WITH 6" MINIMUM DEPTH OF LOAM, SEEDED WITH NEW ENGLAND CONSERVATION / WILDLIFE SEED MIX

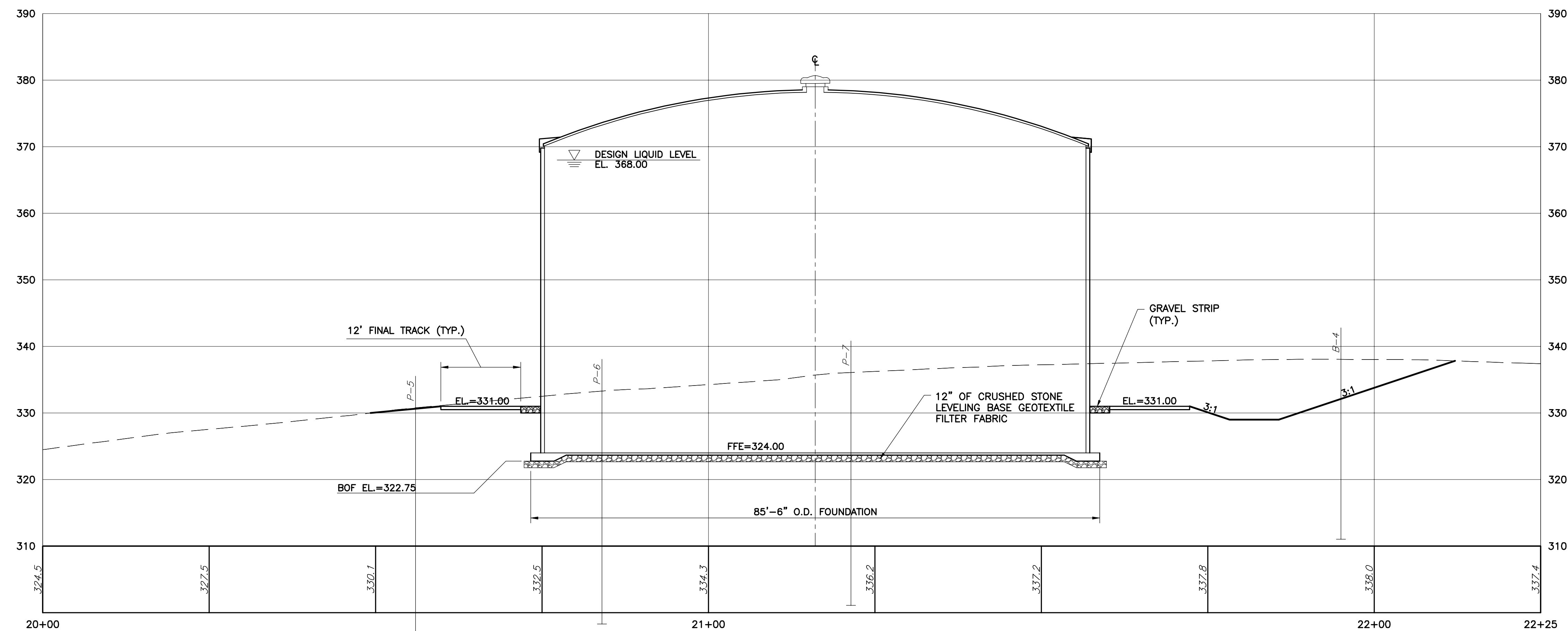
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FRAMINGHAM PLANNING BOARD

CHAIRPERSON	DATE

FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK LANDSCAPING PLAN	NO.	PLANNING BOARD SUBMISSION	DATE	8/16	
	DESIGNED BY:	BAJ	CAD CORP.	RUB2	
	CHECKED BY:	DATE	8/16	APPROVED BY:	RJW
	DATE	8/16	PROJECT NO.	13367B	
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DRAWING C-8					



SECTION A-A
SCALE: 1"=10'



SECTION B-B
SCALE: 1"=10'



PARCEL ID

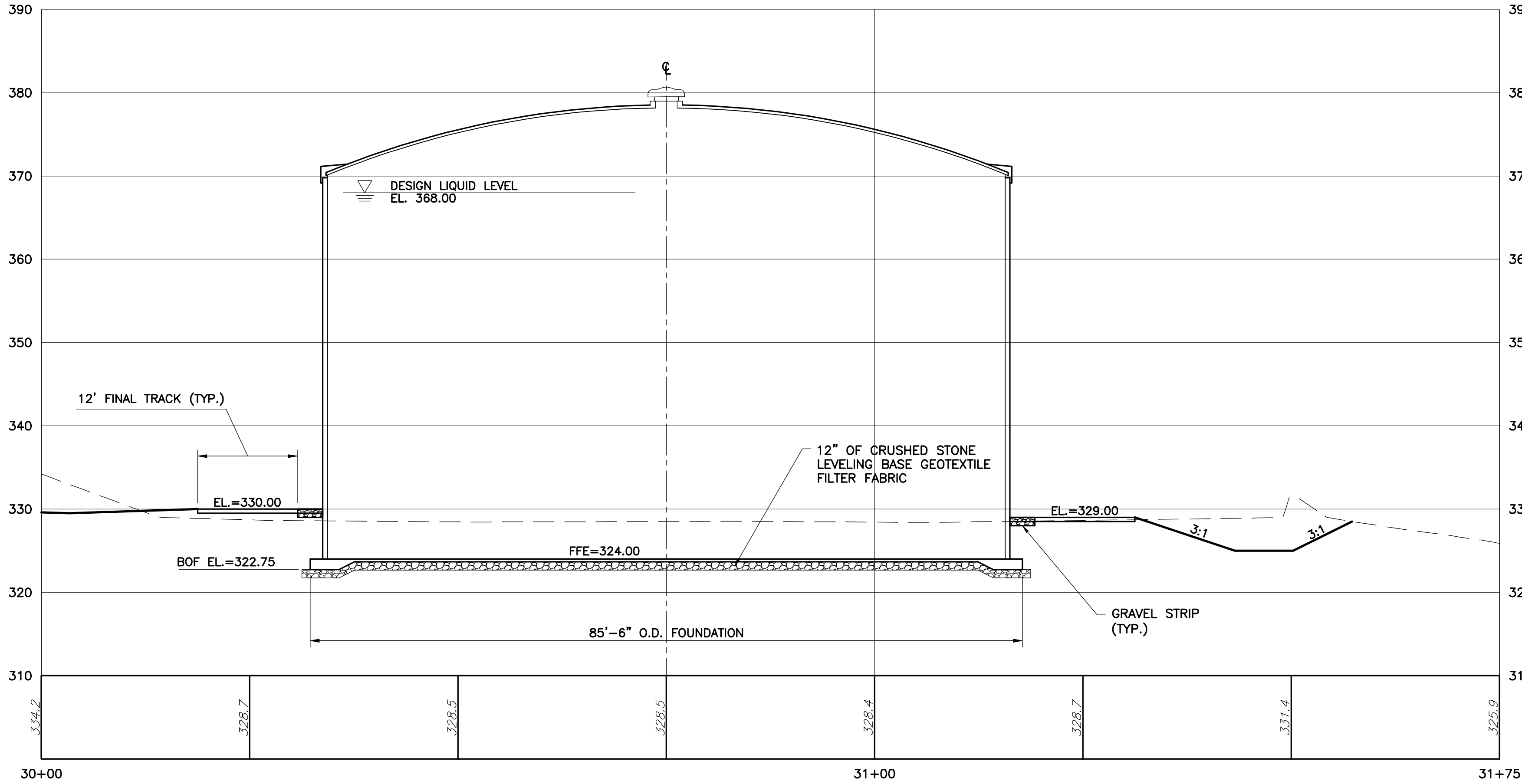
1002470008500150/DEED BOOK 6323/DEED PAGE 424

100592000010008A/DEED BOOK 9369/DEED PAGE 527

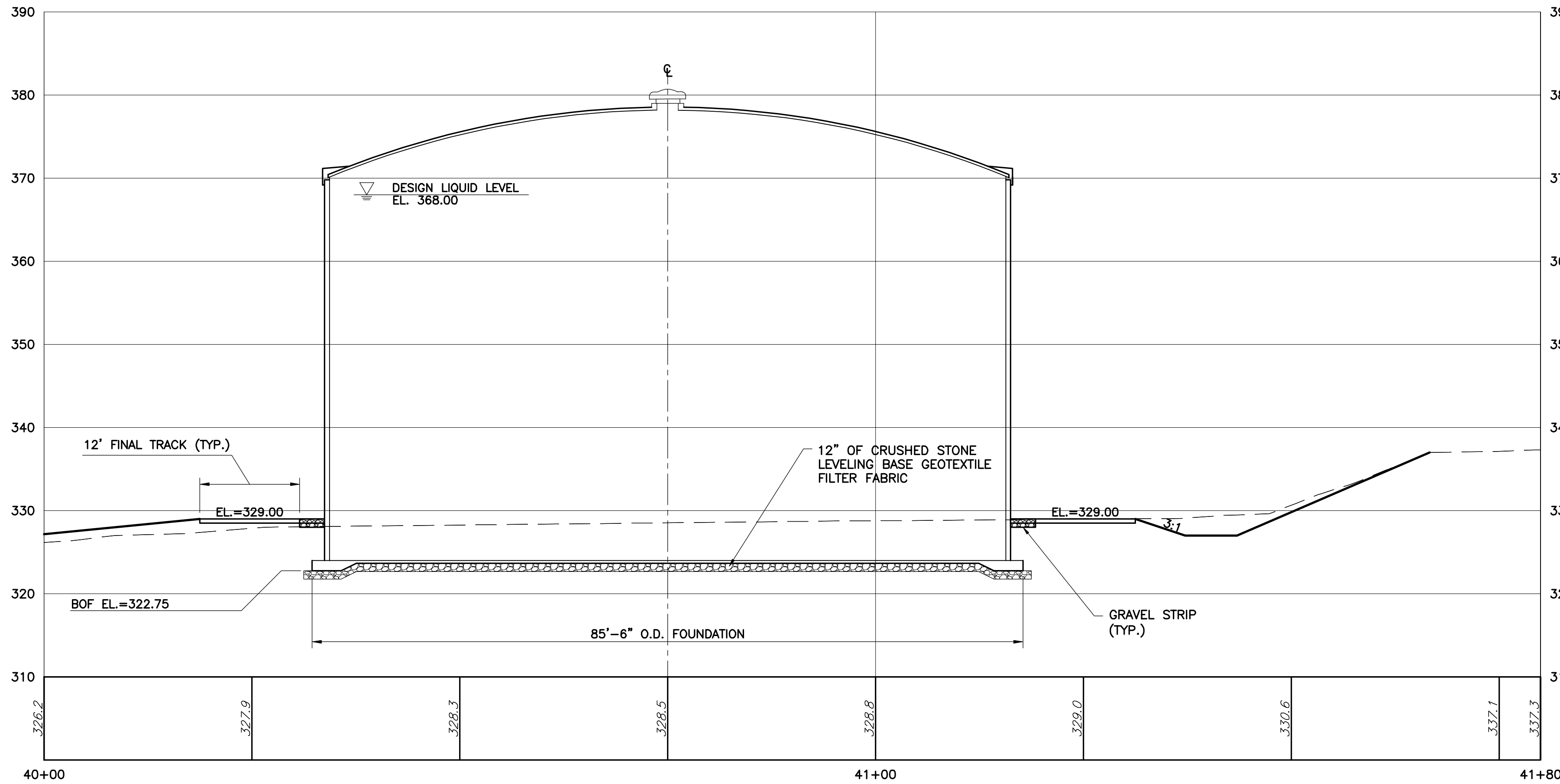
**APPROVED BY
FRAMINGHAM PLANNING BOARD**

CHAIRPERSON	DATE

DRAWING C-9	FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK	TANK SECTIONS TANK 1	<div>WRIGHT-PIERCE Engineering a Better Environment Offices Throughout New England 888.621.8156 www.wright-pierce.com</div>	<div></div>	DESIGNED BY: CAD: CORRO: BAJ	NO.	SUBMISSIONS/REVISIONS	APPD.	DATE			
					CAD: RJB2							
					CHECKED BY: DATE: 8/16	△						
					APPROVED BY: RJB DATE: 8/16	△						
					PROJECT NO: 13367B	△						



SECTION C-C
SCALE: 1"=10'



SECTION D-D
SCALE: 1"=10'

PARCEL ID

1002470008500150/DEED BOOK 6323/DEED PAGE 424
100592000010008A/DEED BOOK 9369/DEED PAGE 527

APPROVED BY
FRAMINGHAM PLANNING BOARD

CHAIRPERSON	DATE

FRAMINGHAM, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
20 & 22 INDIAN HEAD HEIGHTS
INDIAN HEAD HEIGHTS WATER STORAGE TANK

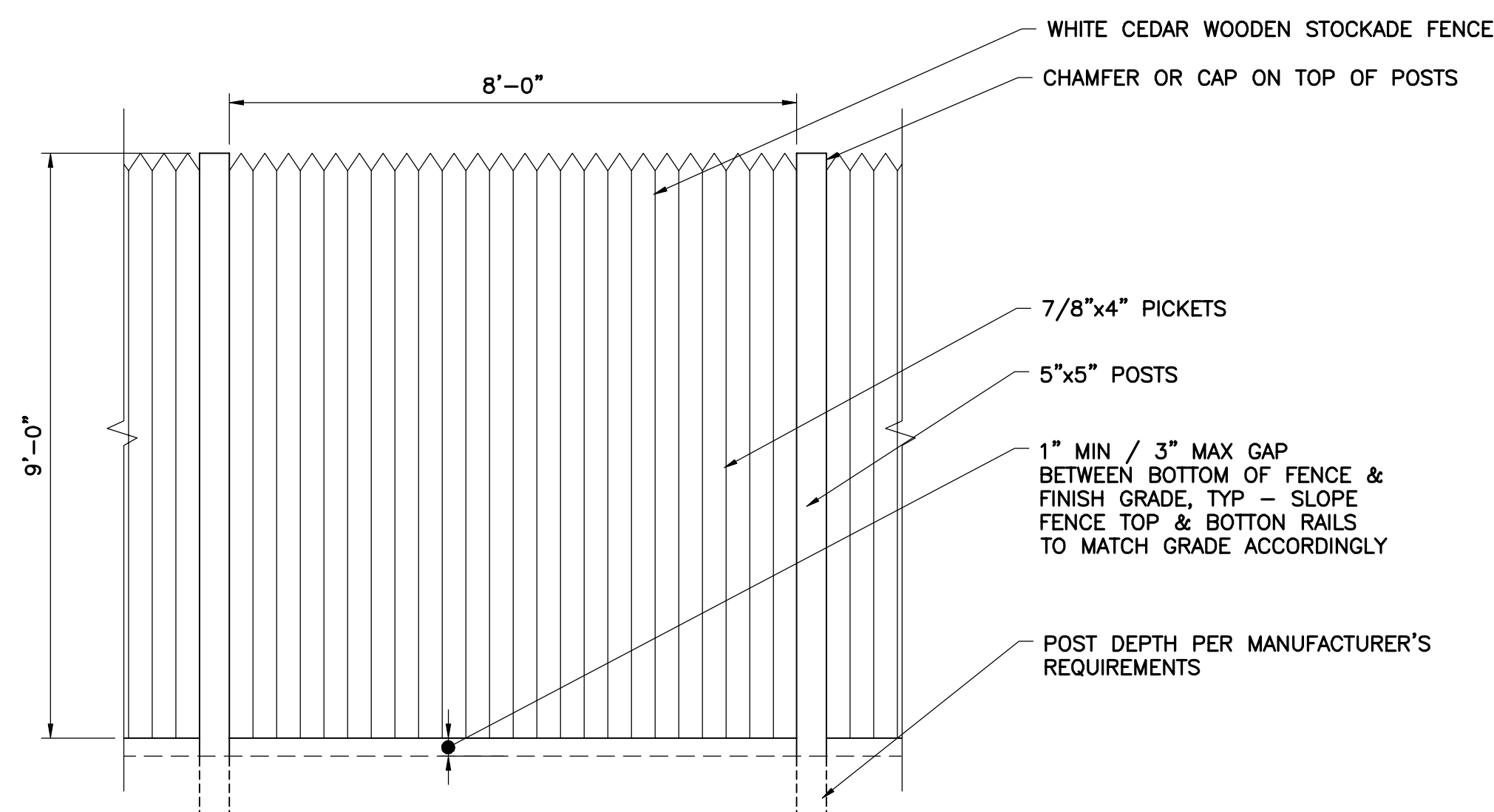
TANK SECTIONS TANK 2

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DATE: 8/16	
APPROVED BY: RJW	
DATE: 8/16	
PROJECT NO: 13367B	

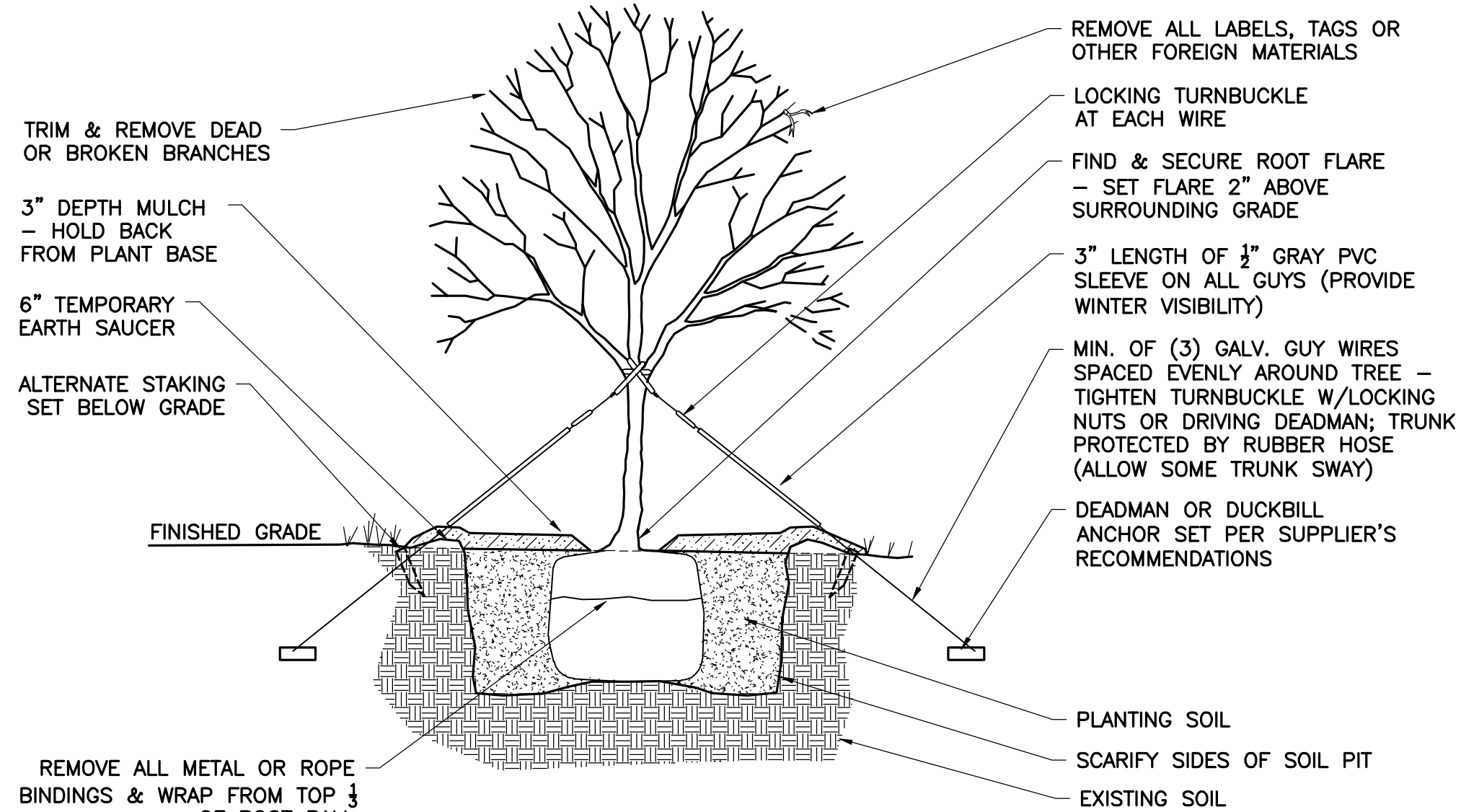
NO.	PLANNING BOARD SUBMISSION	APPROVED	DATE
1			8/16
2			
3			
4			
5			
6			
7			
8			
9			
10			



NOTES:
1. ALL HARDWARE & FENCE ASSEMBLY PER MANUFACTURER'S REQUIREMENTS.

WOODEN STOCKADE FENCE

SCALE: NTS

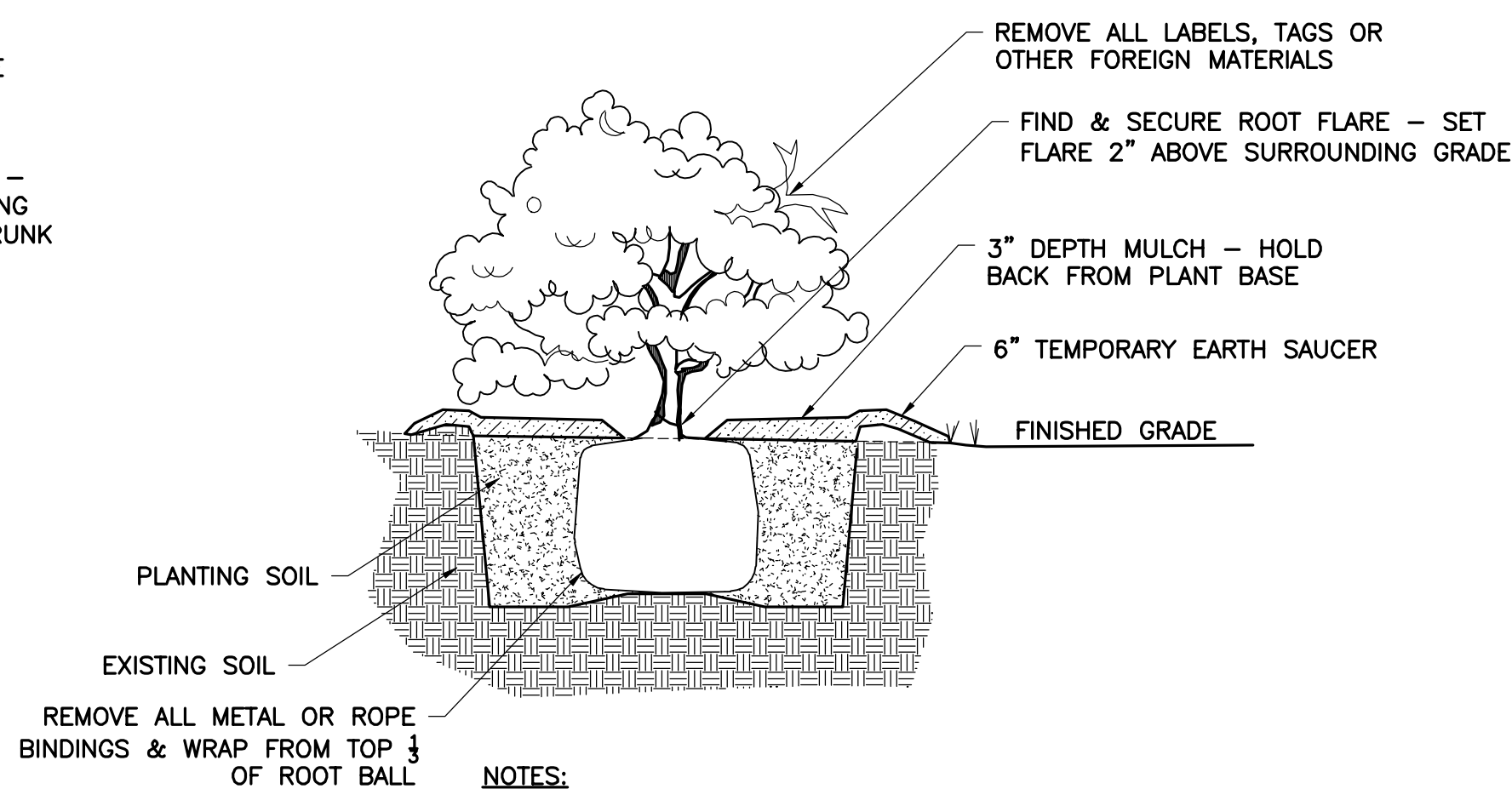


NOTES:

1. TREE TO BE SET PLUMB.
2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION & WIND/WEATHER CONDITIONS
3. IF USING ROOTBALL STABILIZATION, FOLLOW SUPPLIER'S RECOMMENDATIONS

TREE INSTALLATION: 10' AND TALLER

NTS

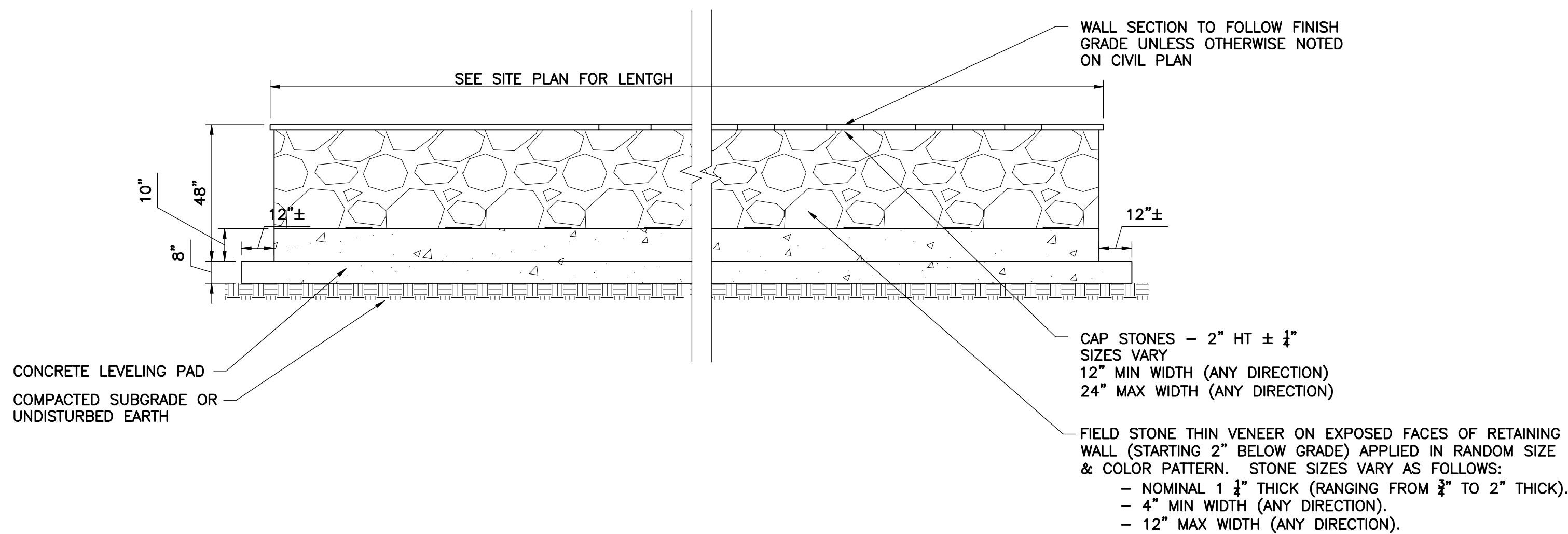


NOTES:

1. SHRUB TO BE SET PLUMB.
2. SECURE SHRUB AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION & WIND/WEATHER CONDITIONS
3. IF USING ROOTBALL STABILIZATION, FOLLOW SUPPLIER'S RECOMMENDATIONS

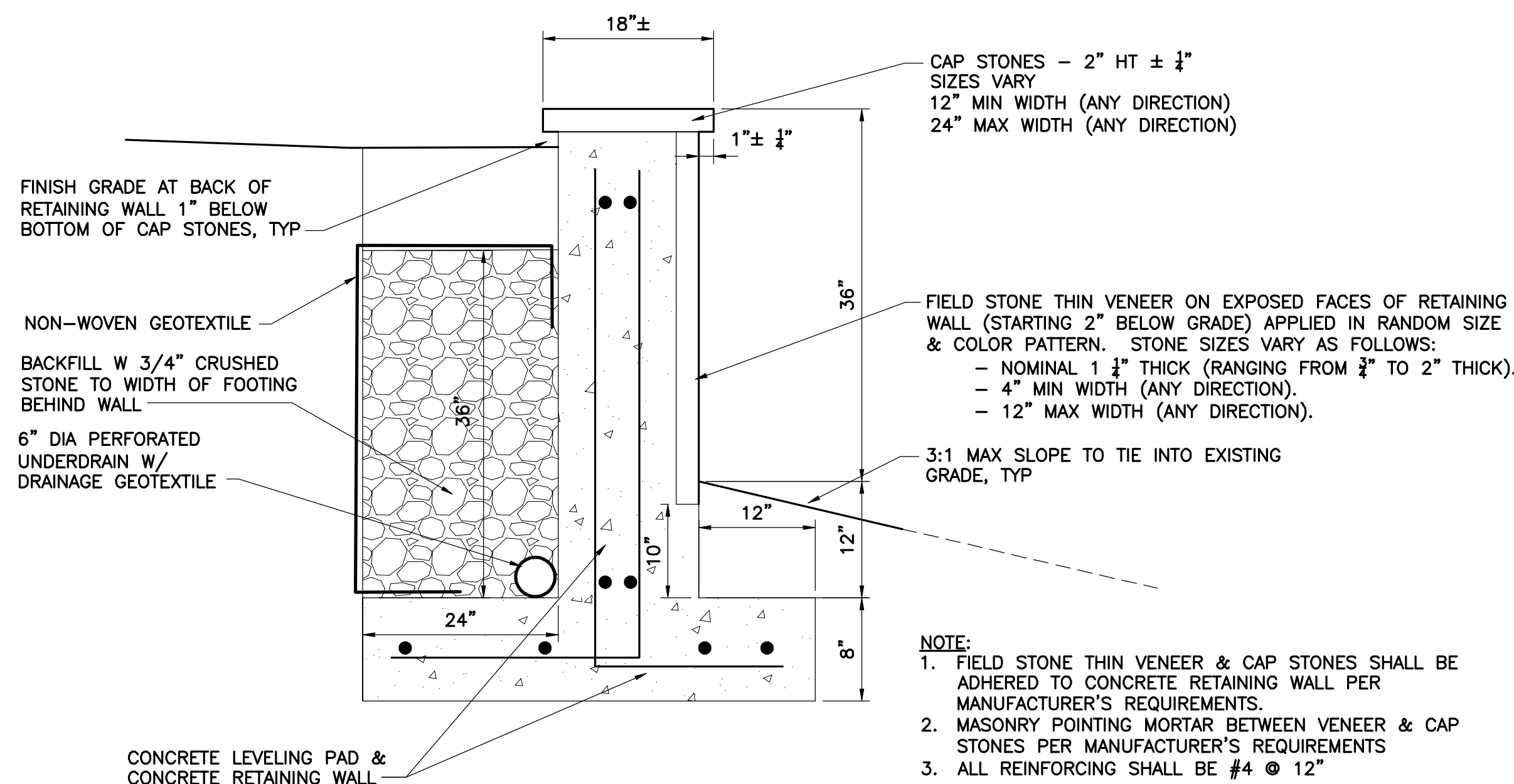
SHRUB INSTALLATION

SCALE: NTS



THIN STONE VENEER RETAINING WALL - ELEVATION

SCALE: NTS

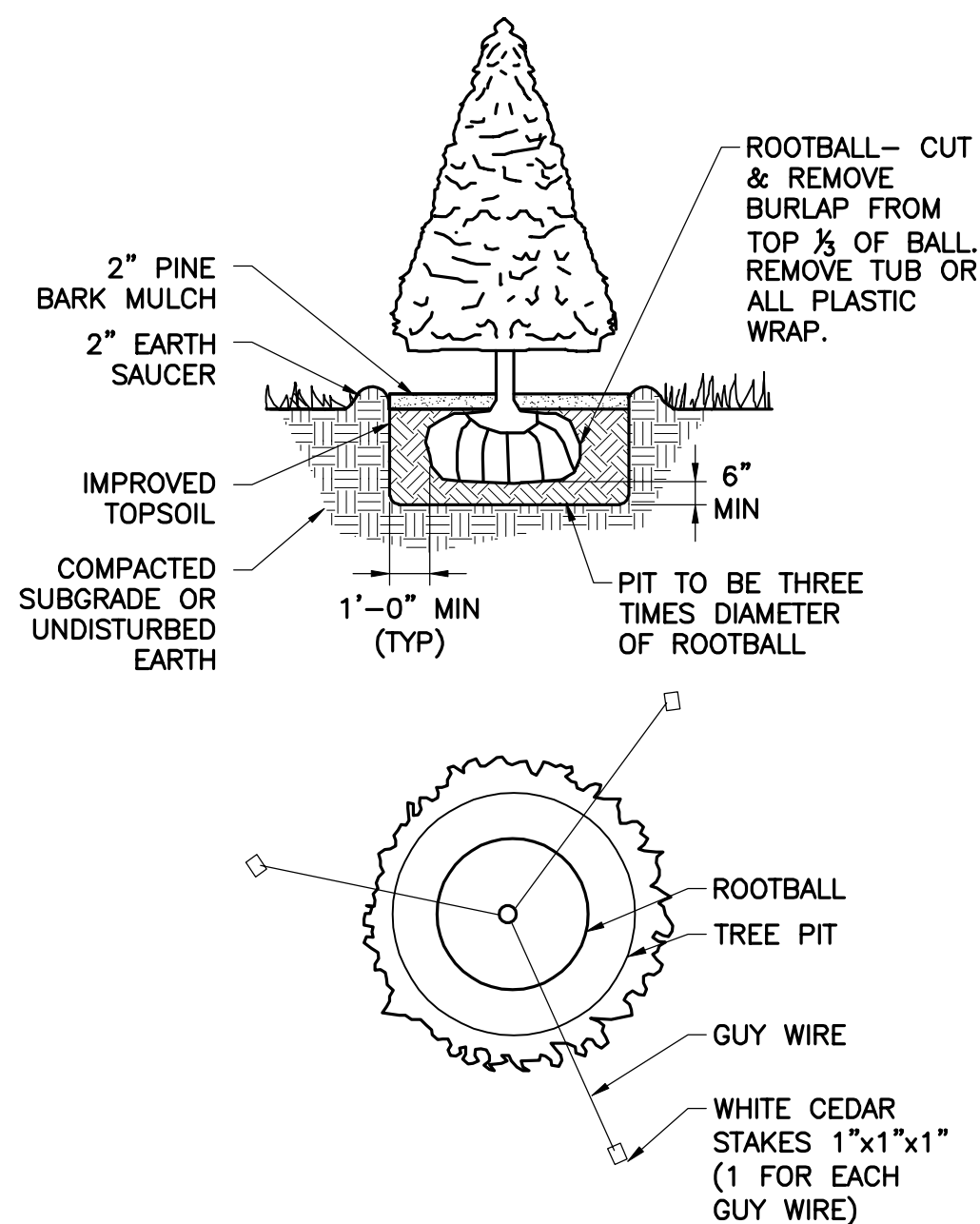


NOTE:

1. FIELD STONE THIN VENEER & CAP STONES SHALL BE ADHERED TO CONCRETE RETAINING WALL PER MANUFACTURER'S REQUIREMENTS.
2. MASONRY POINTING MORTAR BETWEEN VENEER & CAP STONES PER MANUFACTURER'S REQUIREMENTS
3. ALL REINFORCING SHALL BE #4 @ 12"

THIN STONE VENEER RETAINING WALL - SECTION

SCALE: NTS



TREE INSTALLATION: CONIFER

SCALE: NTS

PARCEL ID

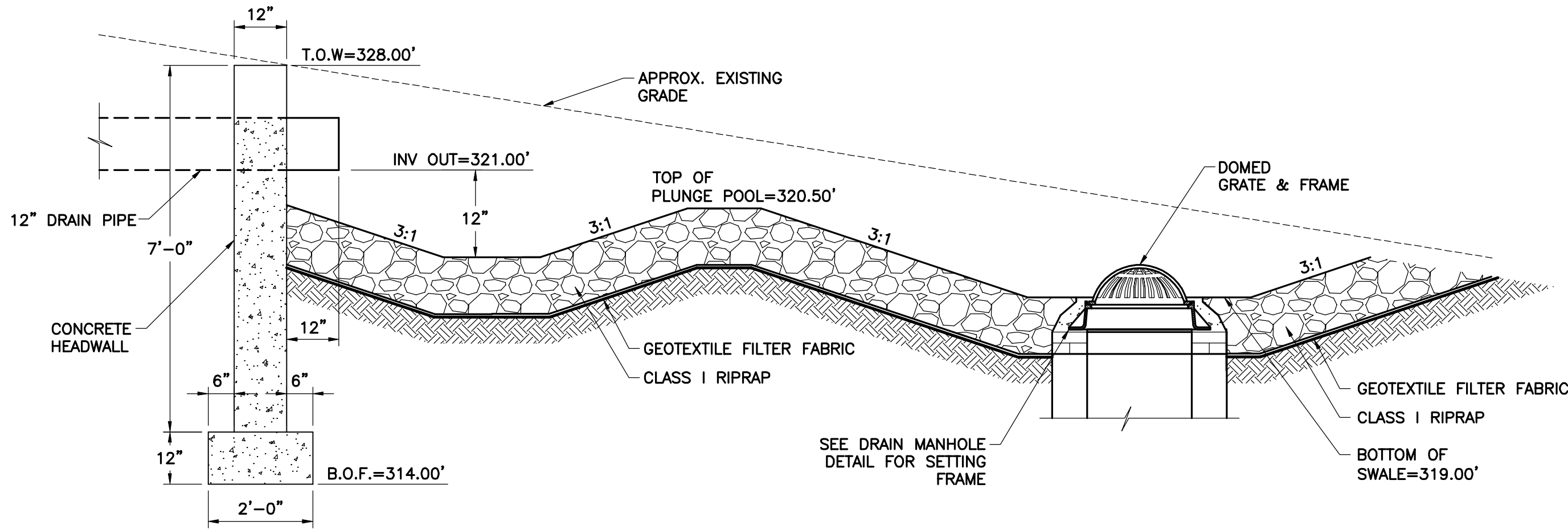
1002470008500150/DEED BOOK 6323/DEED PAGE 424

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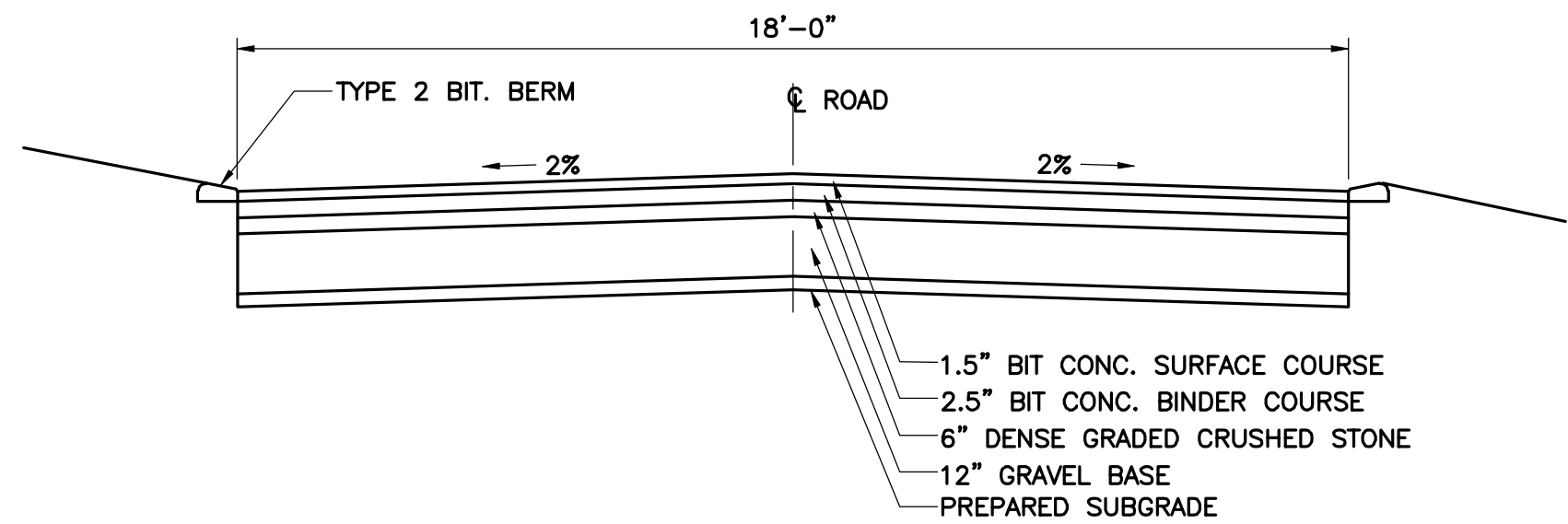
**APPROVED BY
FRAMINGHAM PLANNING BOARD**

CHAIRPERSON _____ DATE _____

<p>FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK</p>	<p>LANDSCAPING DETAILS</p>	<p>DRAWING</p>		<p>C-12</p>	
		<p>WRIGHT-PIERCE Engineering a Better Environment</p> <p>Offices Throughout New England 888.621.8156 www.wright-pierce.com</p>			
		<p>DESIGNED BY: BAJ CAD COORD: RUB2 CHECKED BY: DATE: 8/16 APPROVED BY: RWJ DATE: 8/16 PROJECT NO: 13567B</p>			
<p>NO. _____</p> <p>PLANNING BOARD SUBMISSION</p> <p>SUBMISSIONS/REVISIONS</p> <p>DATE: 8/16</p>		<p>NO. _____</p> <p>PLANNING BOARD SUBMISSION</p> <p>SUBMISSIONS/REVISIONS</p> <p>DATE: 8/16</p>			

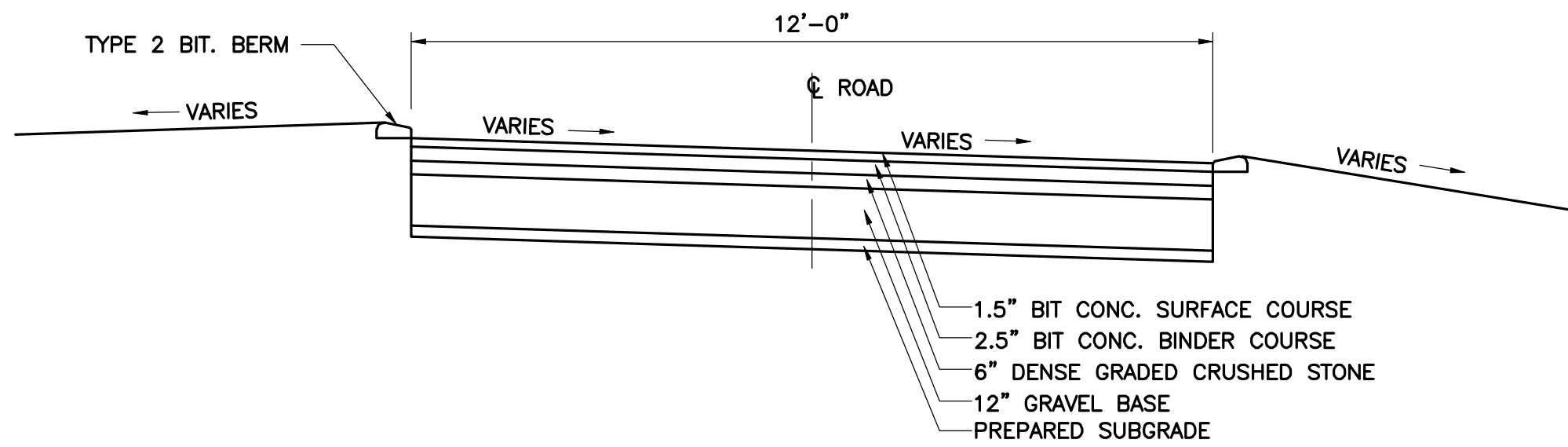


OUTLET HEADWALL DETAIL
NTS

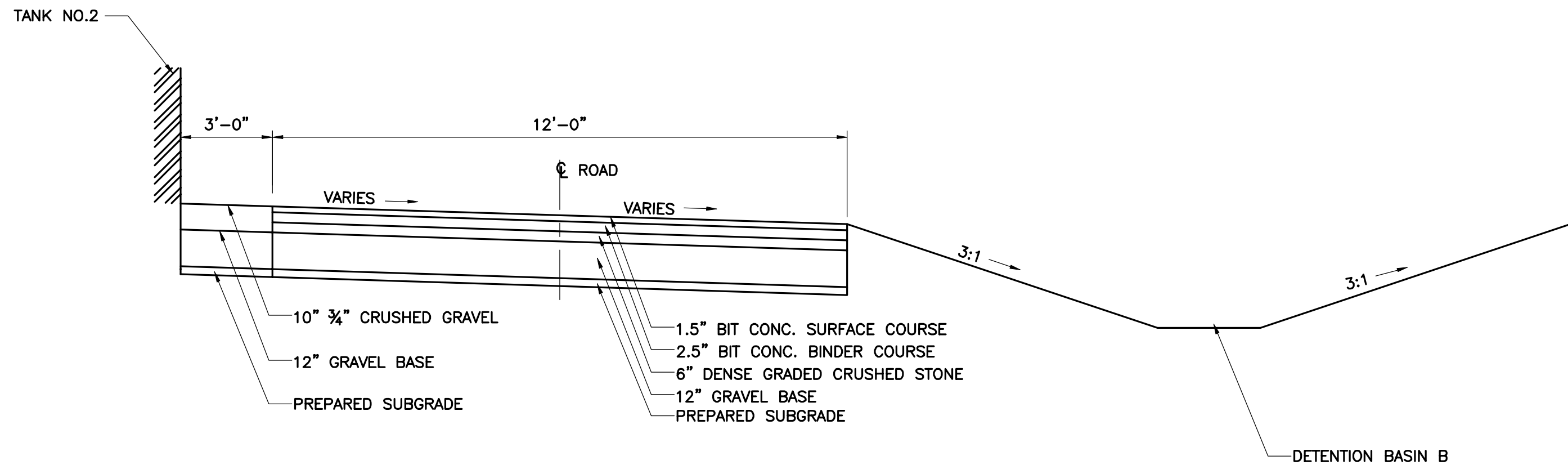


ROADWAY SECTION E-E
SCALE: NTS

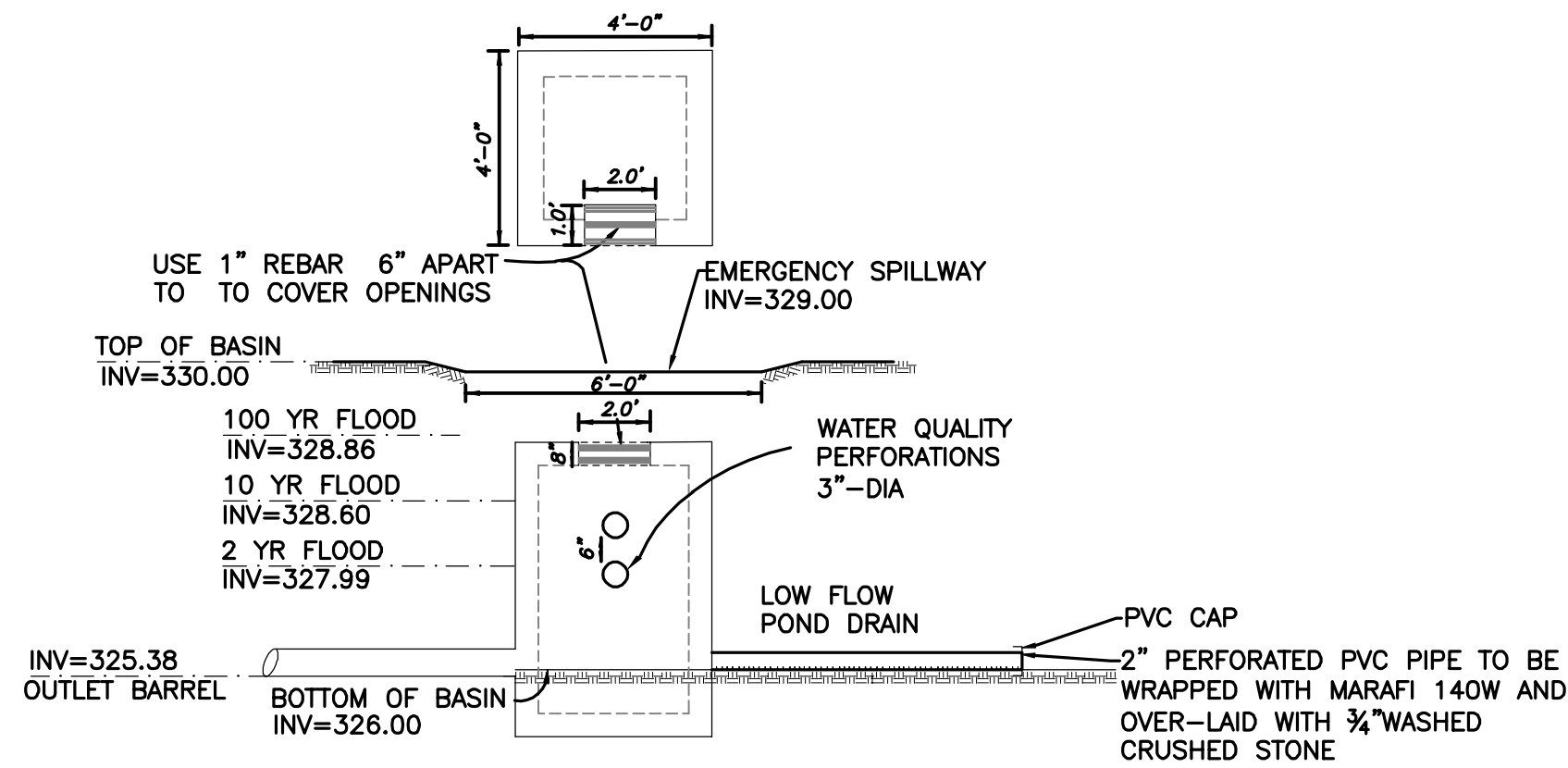
NOTE:
BORINGS INDICATE THAT THERE IS AN 8" THICK REINFORCED CONCRETE SLAB WITHIN INDIAN HEAD HEIGHTS ASSUMED TO BE THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE ROADWAY.



DRIVEWAY SECTION F-F
SCALE: NTS

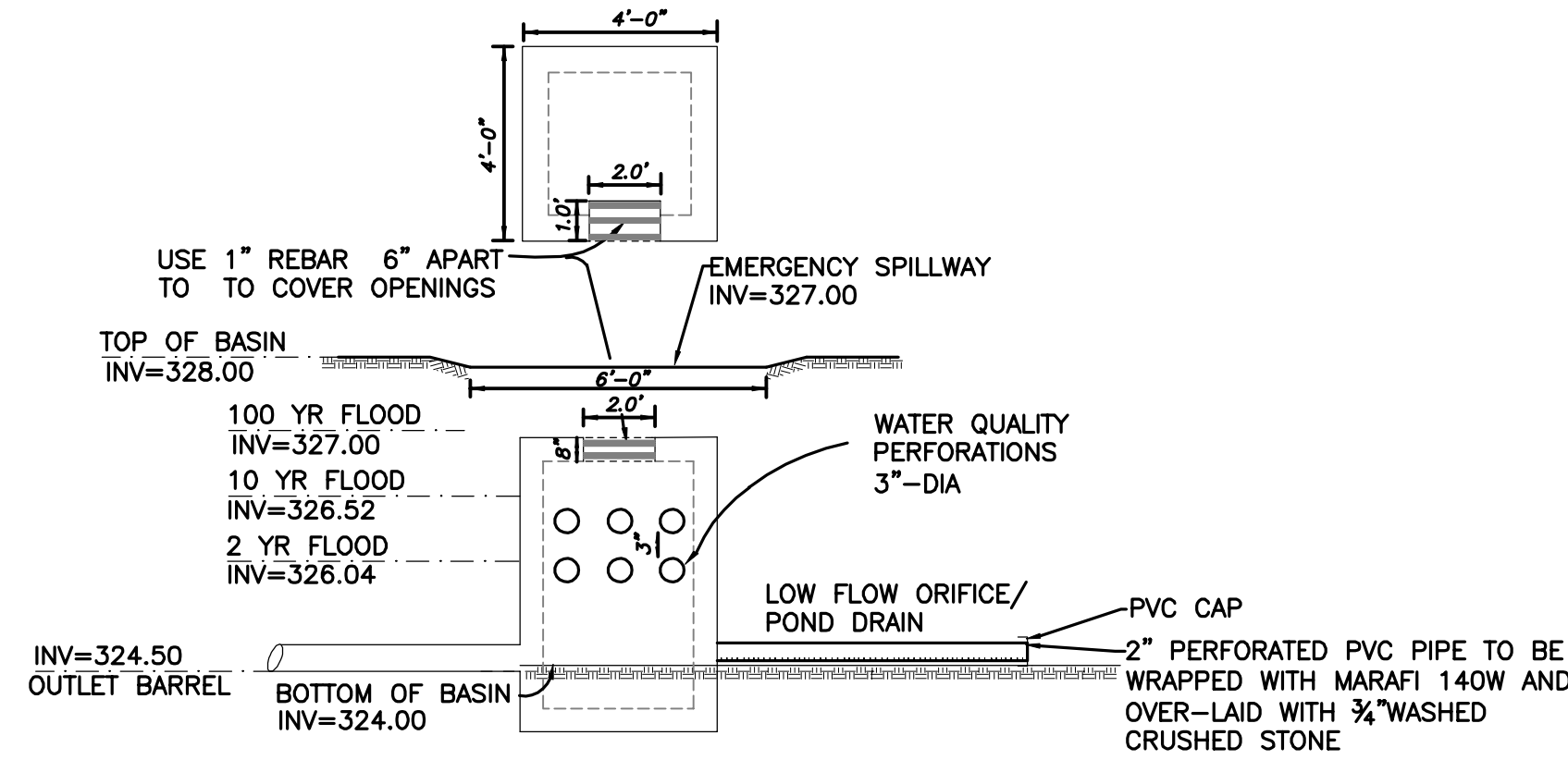


DRIVEWAY SECTION G-G
SCALE: NTS



DETENTION BASIN OUTLET STRUCTURE A DETAIL
SCALE: NTS

NOTES:
1. AFTER ALL ORIFICE OPENINGS HAVE BEEN CUT, AND AFTER FINAL PLACEMENT OF THE MANHOLE, ALL EXPOSED REBAR SHALL BE COATED WITH SIKAGARD 62 HIGH BUILD EPOXY COATING, OR APPROVED EQUAL.
2. STRUCTURE DESIGN TO LATEST ASTM C478.
3. REINFORCING STEEL CONFORMS TO LATEST ASTM A 185.
4. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI @ 28 DAYS.
5. ONE POUR MONOLITHIC BASE.



DETENTION BASIN OUTLET STRUCTURE B DETAIL
SCALE: NTS

NOTES:
1. AFTER ALL ORIFICE OPENINGS HAVE BEEN CUT, AND AFTER FINAL PLACEMENT OF THE MANHOLE, ALL EXPOSED REBAR SHALL BE COATED WITH SIKAGARD 62 HIGH BUILD EPOXY COATING, OR APPROVED EQUAL.
2. STRUCTURE DESIGN TO LATEST ASTM C478.
3. REINFORCING STEEL CONFORMS TO LATEST ASTM A 185.
4. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI @ 28 DAYS.
5. ONE POUR MONOLITHIC BASE.

PARCEL ID

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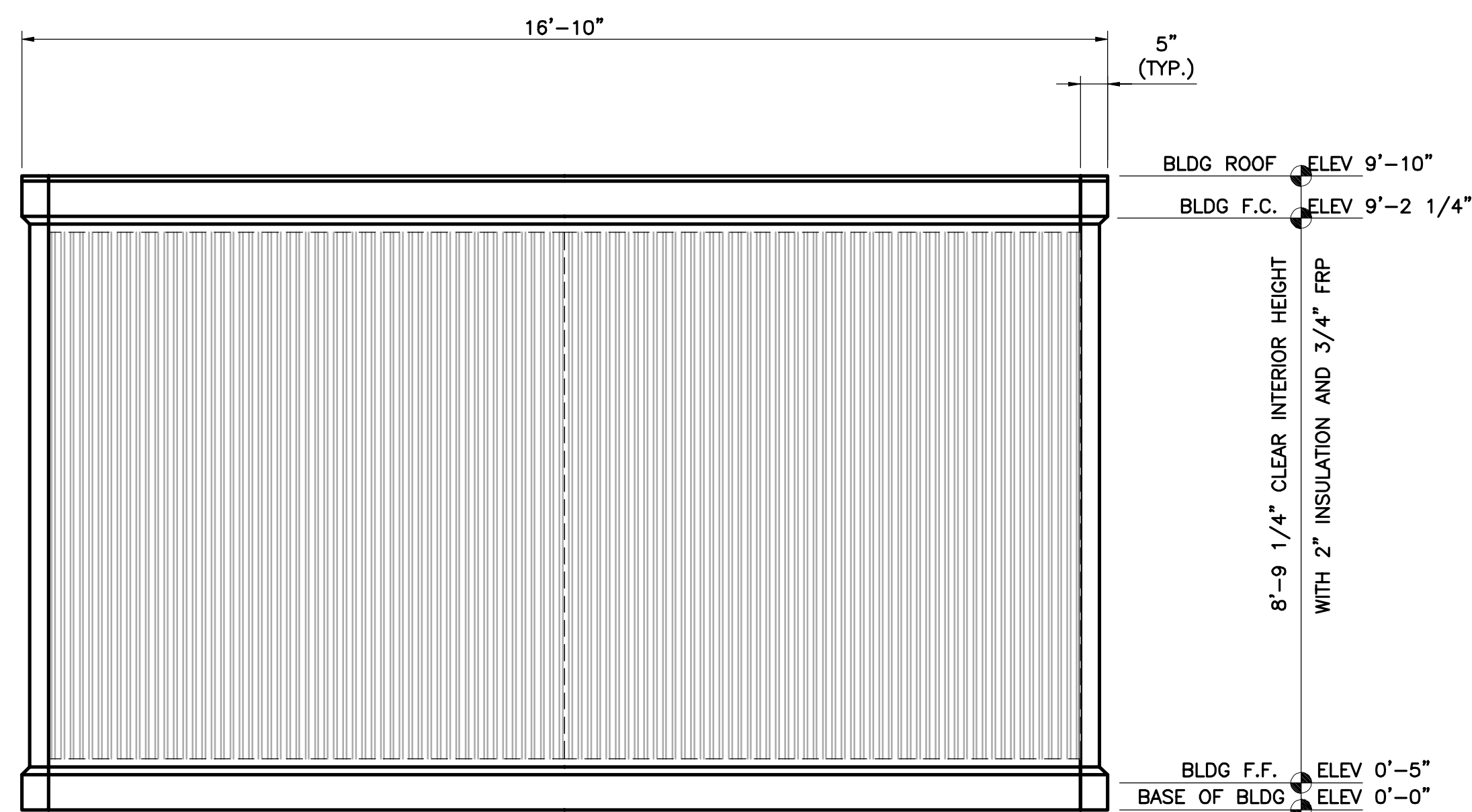
CHAIRPERSON _____ DATE _____

FRAMINGHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS 20 & 22 INDIAN HEAD HEIGHTS INDIAN HEAD HEIGHTS WATER STORAGE TANK	DETAILS	DRAWING C-13
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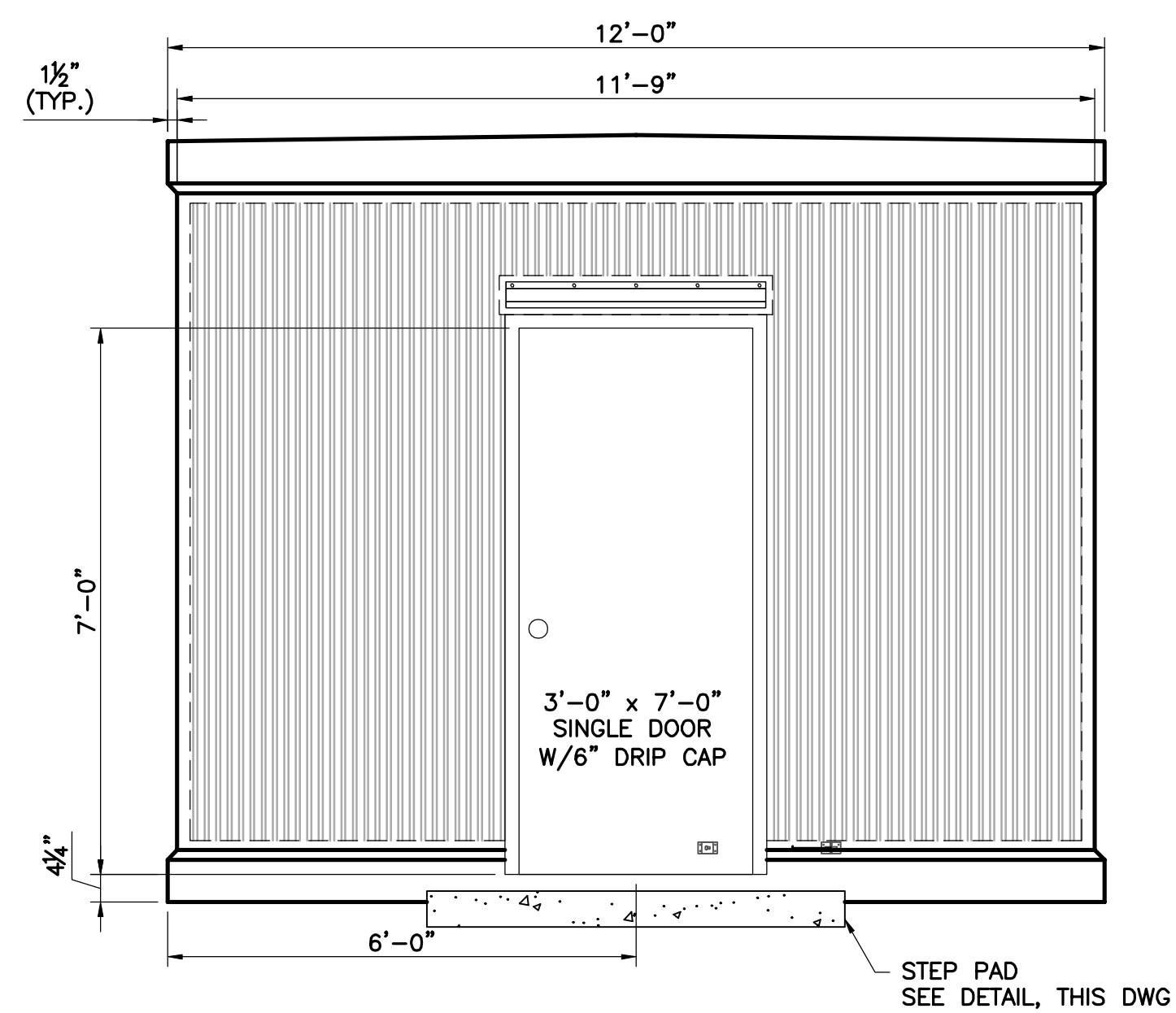
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DESIGNED BY: BAJ	DATE: 8/16
CAD: RJBZ	APPROVED BY: R.W.
CHECKED BY: R.W.	DATE: 8/16
PROJECT NO: 13367B	

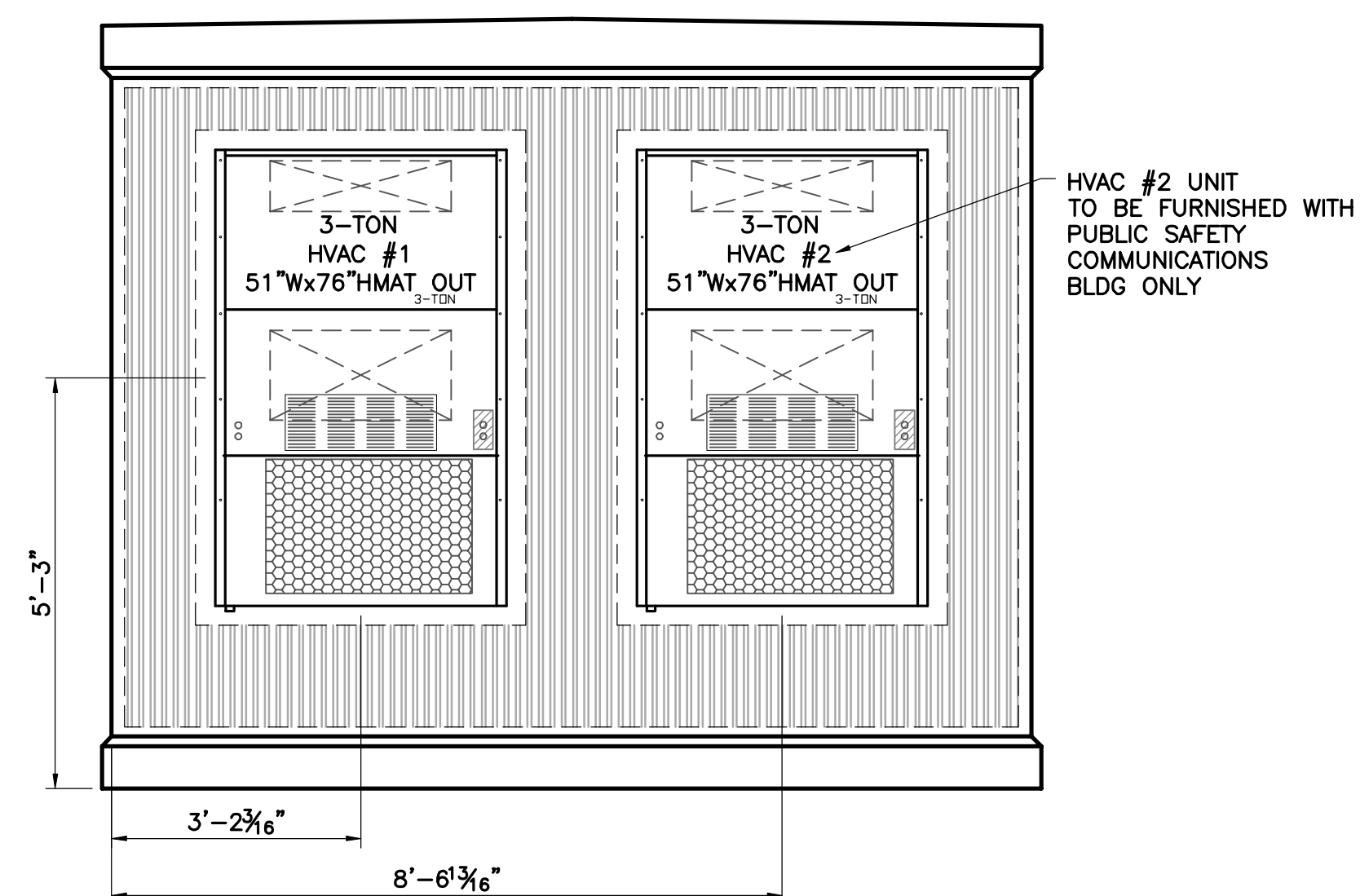
NO.	REVISIONS	DATE
1	PLANNING BOARD SUBMISSION	8/16



EAST & WEST ELEVATION

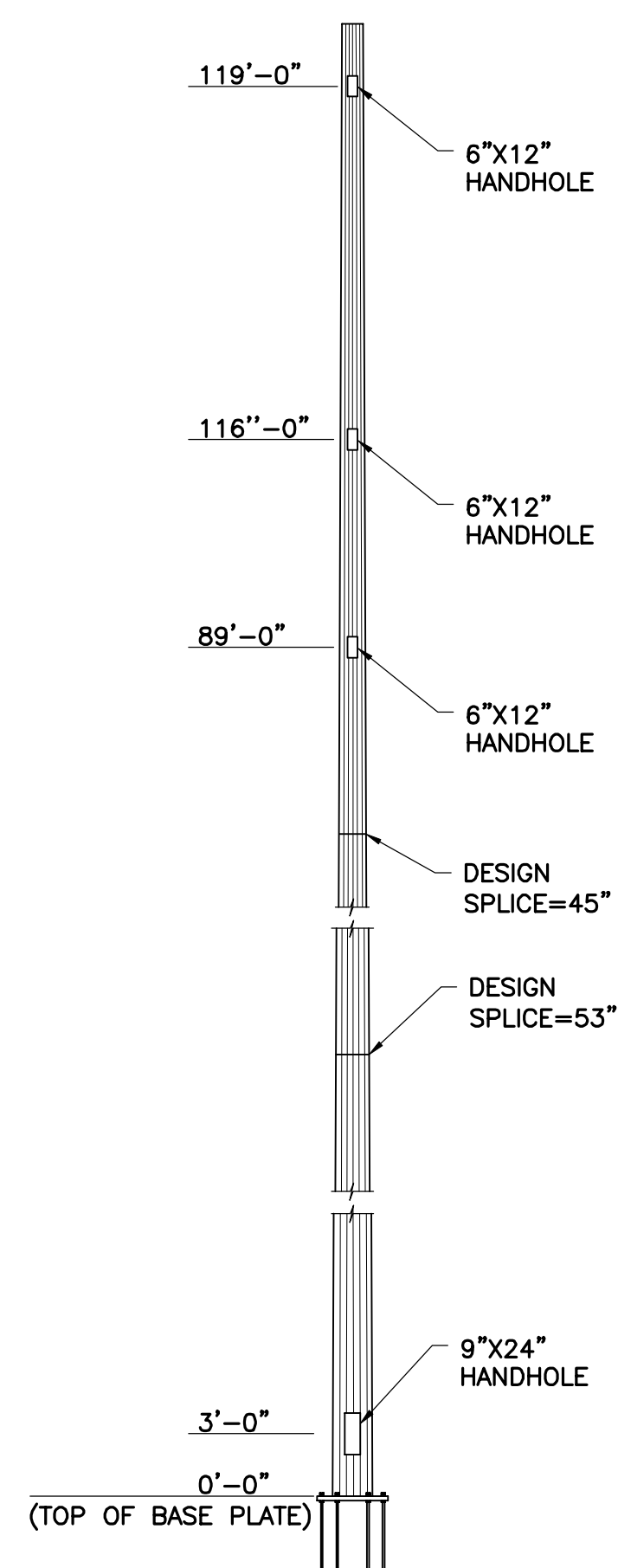


NORTH ELEVATION

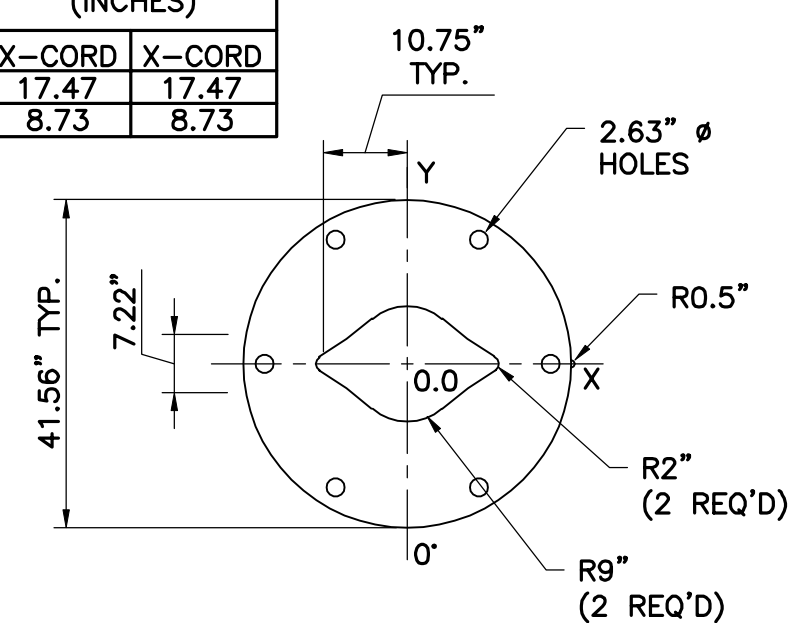


SOUTH ELEVATION

COMMUNICATION BUILDING
NTS



HOLE COORDS (INCHES)	
X-CORD	X-CORD
17.47	17.47
8.73	8.73

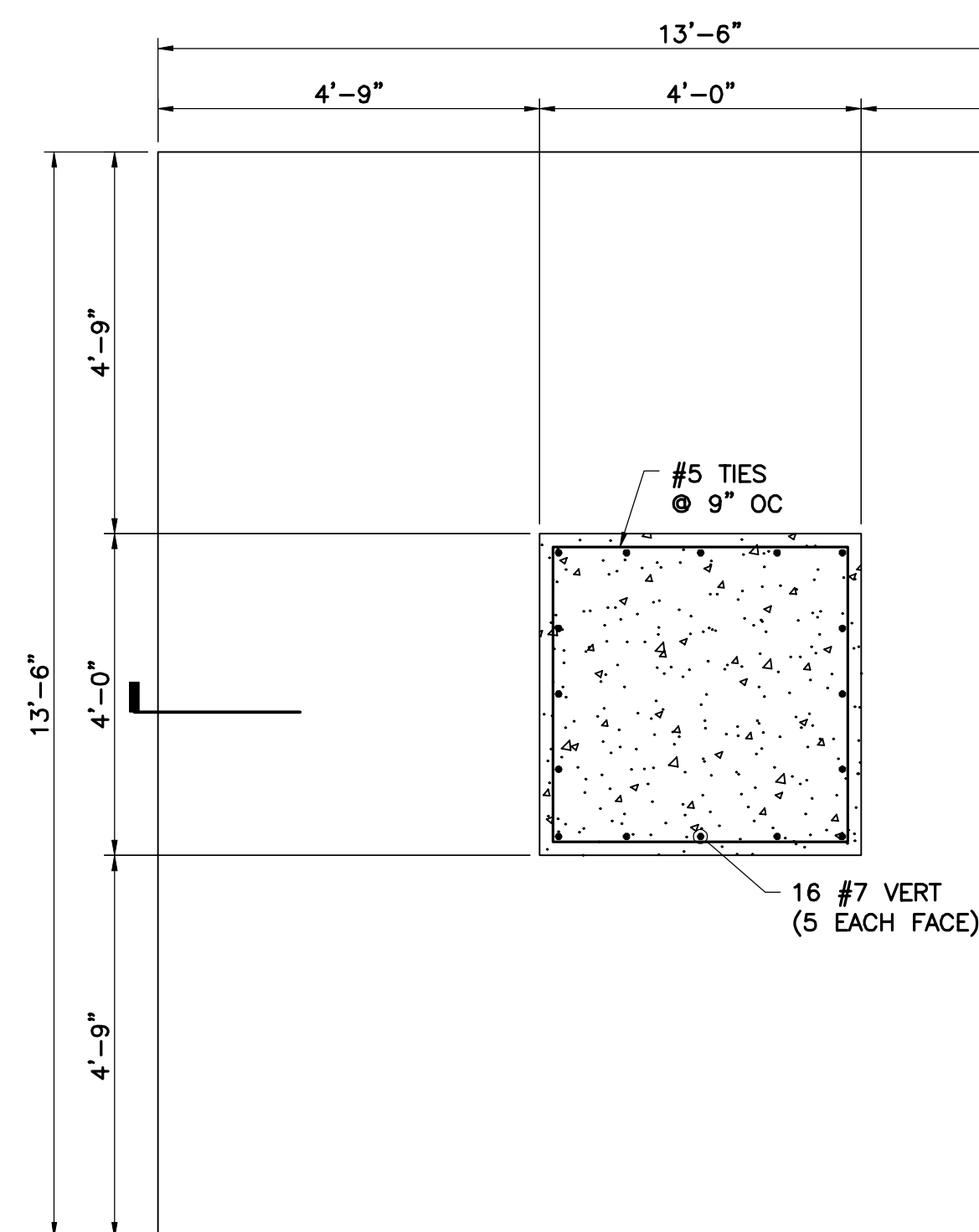


BASE PLATE

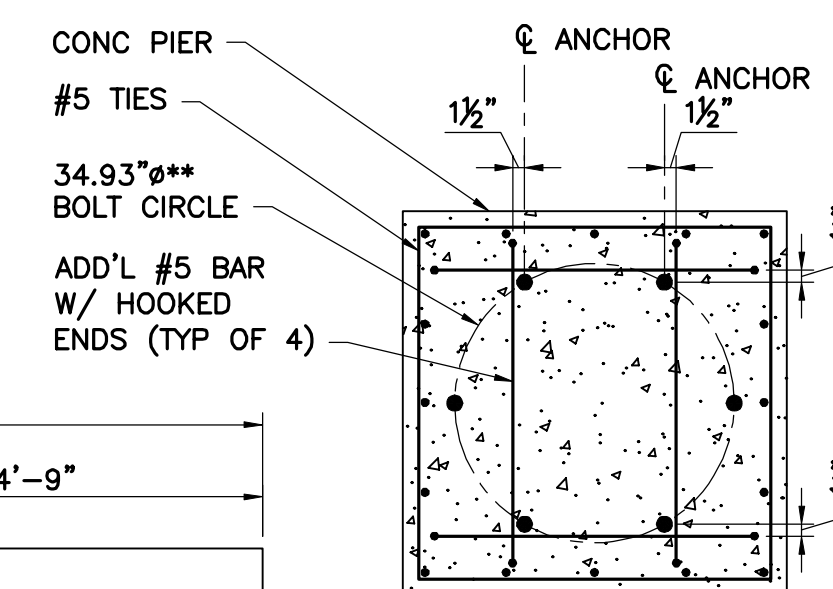
NOTES:

1. BASE PLATE THICKNESS = 2.750"
2. BASE ALLOWABLE STRESS (KSI) = 50
3. ANGLES ARE MEASURED CLOCKWISE FROM 0 DEGREE
4. MAXIMUM BOLT CIRCLE DIAMETER = 34.93"
5. MAXIMUM CAGE TEMPLATE DIAMETER = 40.93"

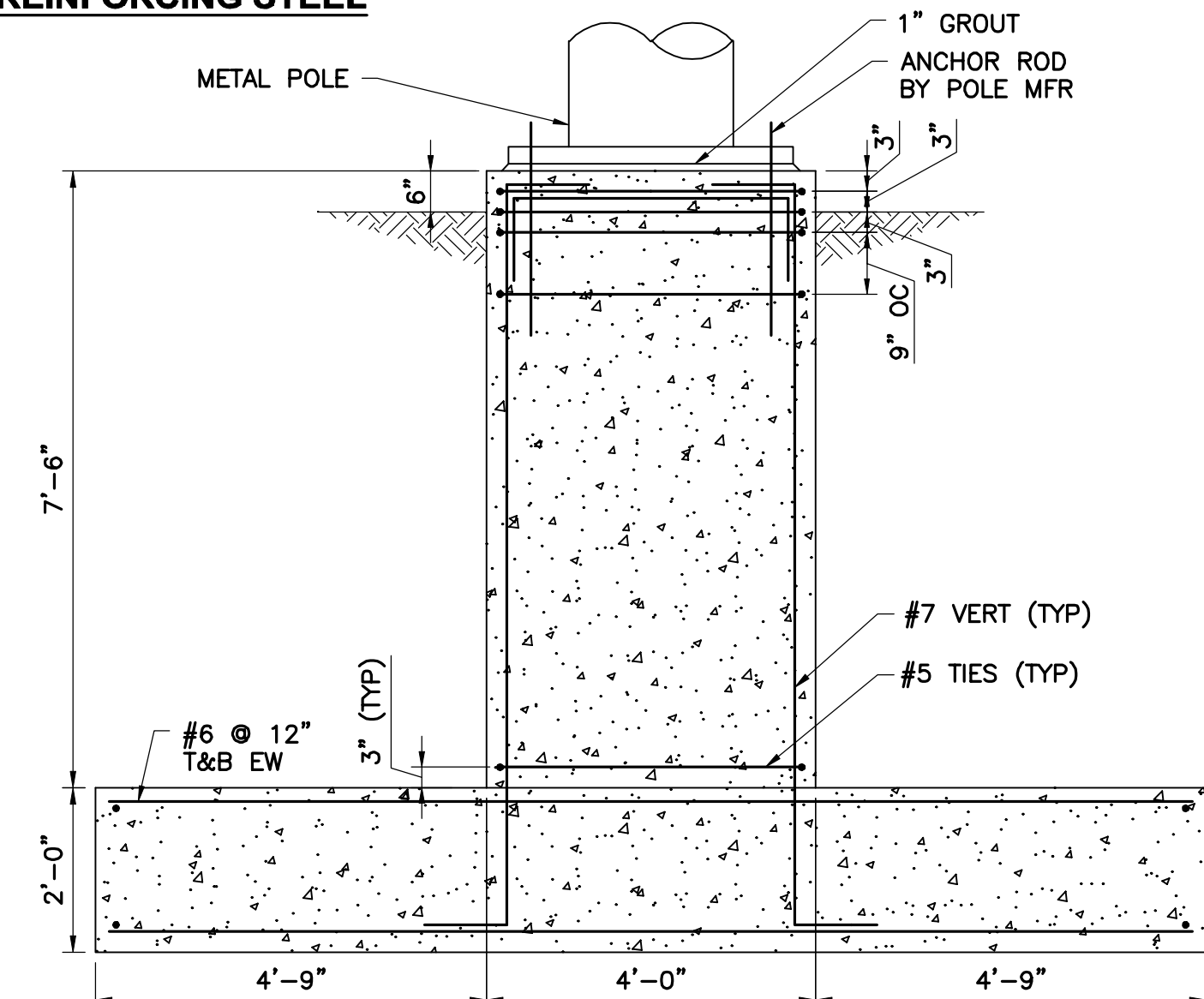
MONOPOLE DETAIL
SCALE: 1/2"=1'-0"



PLAN

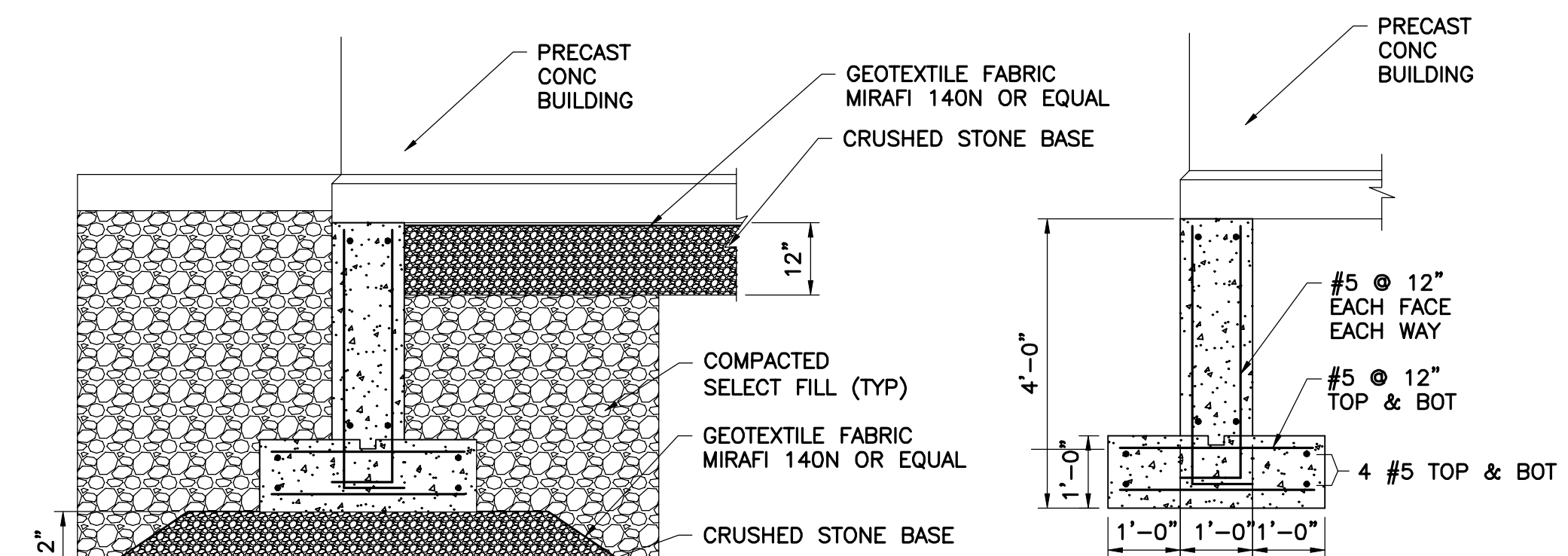


ADDITIONAL TOP OF PIER
REINFORCING STEEL



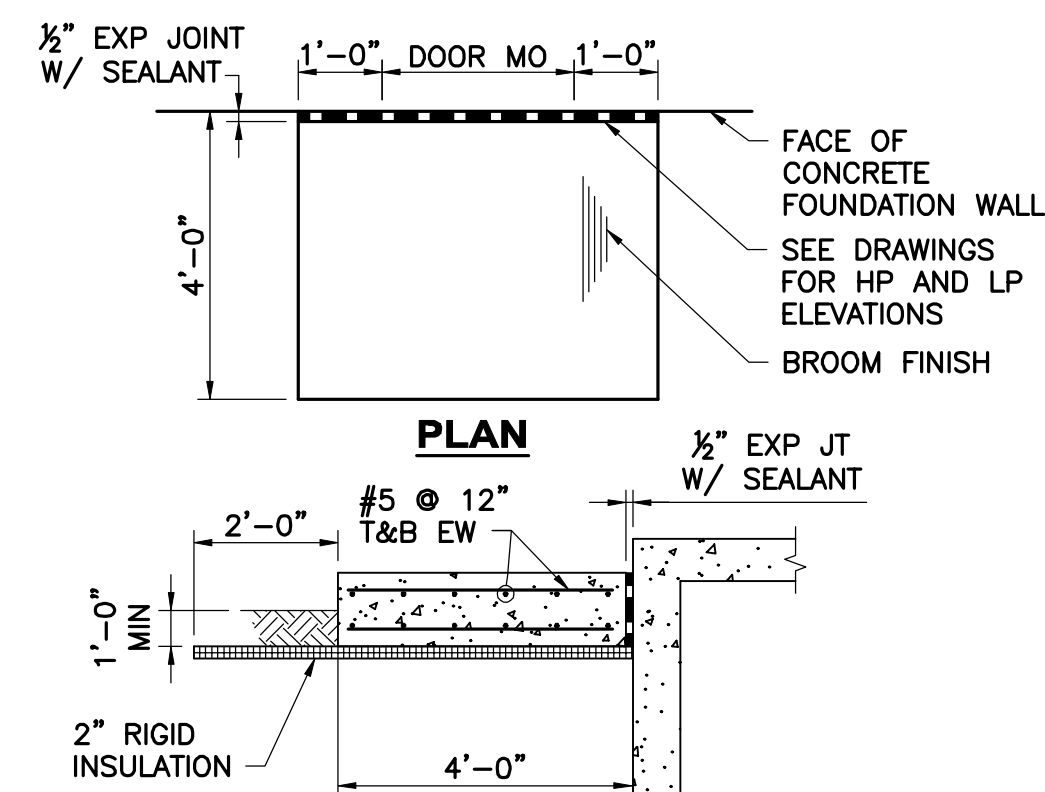
SECTION

POLE FOUNDATION
SCALE: 1/2"=1'-0"



TYPICAL BACKFILL DETAIL

TYPICAL FROST WALL



SECTION THRU PAD
STEP PAD DETAIL
NTS

**APPROVED BY
FRAMINGHAM PLANNING BOARD**

PARCEL ID

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CHAIRPERSON _____ DATE _____

[illegible]

DESIGNED BY:	BAJ	NO
CAD COORD:		
CAD:	RJB2	1
CHECKED BY:		2
DATE:	8/16	3
APPROVED BY:	RJW	4
DATE:	8/16	
PROJECT NO:	13367B	



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